



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

MEETING MATERIALS

July 10, 2013

CALTRANS

BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION





Letter of Transmittal

TO: Toll Bridge Program Oversight Committee
(TBPOC)

DATE: July 2, 2013

FR: Program Management Team (PMT)

RE: TBPOC Meeting Materials Packet – July 10, 2013

Herewith is the TBPOC Meeting Materials Packet for the July 10th meeting. The packet includes memoranda and reports that will be presented at the meeting. A Table of Contents is provided following the Agenda to help locate specific topics.

Final Agenda

TBPOC MEETING
July 10, 2013, 12:30pm – 3:30pm
MTC/ BATA, 101 Eighth Street, Oakland, CA
TBPOC-PMT pre-briefing (Executive Conf Rm): 12:30pm – 1:30pm
TBPOC meeting (The Claremont): 1:30pm – 3:30pm

	Topic	Presenter	Time	Desired Outcome
1.	CHAIR'S REPORT	S. Heminger, BATA		Information
2.	CONSENT CALENDAR			
	a. TBPOC Meeting Minutes	A. Fremier, BATA		Approval
	1. June 6, 2013 Meeting Minutes*			
	b. Contract Change Orders (CCOs)	D. Noel, CTC		Approval
	1. CCO 197-S0 (YB ITS1), Polyester Concrete Overlay at West Tie-In*			
3.	PROGRESS REPORTS			
	a. Project Progress and Financial Update June 2013***	P. Lee, BATA	5 min	Information
4.	PROGRAM ISSUES			
	a. Gateway Park Updated Park Plan, Capital Costs and Phasing*	A. Fremier, BATA	15 min	Approval
5.	SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES			
	a. E2 Update			
	1. E2 Budget***	T. Anziano, CT	15 min	Approval
	2. E2 CCOs***	T. Anziano, CT	15 min	Approval
	3. Testing Budget***	T. Anziano, CT	15 min	Approval
	b. Corridor Update/ Schedule*	T. Anziano, CT	5 min	Information
	c. Bridge Safety and Security*	T. Anziano, CT	15 min	Information
	d. Mechanical, Electrical & Piping (MEP) System Update*	S. Shahmirzai, BATA	15 min	Information
6.	OTHER BUSINESS			
	a. TBPOC August 1, 2013 Meeting Reschedule			

Next TBPOC Meeting: August 1, 2013, 10:00am – 1:00pm
Mission Bay Office, Oakland, CA

* Attachments

** Attachments at front of binder

*** Attachments to be sent under separate cover

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3	3	PROGRESS REPORTS a. Project Progress and Financial Update June 2013***
4	4	PROGRAM ISSUES a. Gateway Park Updated Park Plan, Capital Costs and Phasing*
5	5	SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. E2 Update 1. E2 Budget*** 2. E2 CCOs*** 3. Testing Budget*** b. Corridor Update/Schedule* c. Bridge Safety and Security* d. Mechanical, Electrical & Piping (MEP) System Update*
6	6	OTHER BUSINESS a. TBPOC August 1, 2013 Meeting Reschedule

* Attachments

** Attachments at end of binder

*** Attachments to be sent under separate cover

ITEM 1: CHAIR'S REPORT

No Attachments

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** July 2, 2013

FR: Andrew Fremier, Deputy Executive Director, Operations, BATA/MTC

RE: Agenda No. - 2a1
Consent Calendar
Item- TBPOC Meeting Minutes
June 6, 2013 Meeting Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the June 6, 2013 Meeting Minutes.

Attachment(s):
June 6, 2013 Meeting Minutes



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

TBPOC MEETING MINUTES

June 6, 2013, 1:30 PM – 2:30 PM

1120 N Street, Sacramento, CA

Attendees: TBPOC Members: Steve Heminger (Chair), Andre Boutros, and Malcolm Dougherty
PMT Members: Brian Maroney (for Tony Anziano), Andrew Fremier, and Stephen Maller
Participants: Ade Akinsanya, Bill Casey, Michele DiFrancia, Rich Foley, Andrew Gordon, Ted Hall, Keith Hoffman, Beatriz Lacson, Richard Land, Peter Lee, Dina Noel, Melissa Pedersen, Bijan Sartipi, Saeed Shahmirzai, Jon Tapping, Ken Terpstra, Chris Traina, Bob Travis, Deanna Vilchek, and Karen Wang
Guests: ABF - Brian Petersen (ABF), Peter Vander Waart; PB – Brady Nadell; METS – Mazen Wahbeh; TYLin/M&N – Marwan Nader, Dennis Jang

Convened: 1:52 PM

Items		Action
1.	CHAIR'S REPORT <ul style="list-style-type: none">• The Chair asked M. Dougherty to report on the legislative briefing.○ M. Dougherty reported that this morning's legislative briefing—similar to the presentation given at the May 29 BATA special meeting—was well received. The briefing was attended by State Senators and members of the Assembly, who appreciated the update firsthand.	
2.	CONSENT CALENDAR <ul style="list-style-type: none">a. TBPOC Meeting Minutes<ol style="list-style-type: none">1. April 17, 2013 Meeting Minutes2. May 1, 2013 Meeting Minutes3. May 7, 2013 Conference Call Minutes4. May 9, 2013 Meeting Minutes5. May 15, 2013 Meeting Minutesb. Contract Change Orders (CCOs)<ol style="list-style-type: none">1. CCO 601 S0 (YBITS2), W4 Substation Upgrades, Not to Exceed \$1,500,0002. CCO 150-S1 (SAS), BASE Camera Installation, Not to Exceed \$1,400,0003. CCO 159-S1 (YBITS1), YBI Tunnel	<ul style="list-style-type: none">• The TBPOC APPROVED the TBPOC Meeting Minutes, as presented.• The TBPOC APPROVED the CCOs, as presented.

(Continued)

Items	Action
<p>Upper Deck LED Lighting, \$1,346,090</p> <p>4. CCO 184-S0 (YBITS1), YBI Tunnel Polyester Concrete Overlay, \$2,955,215</p> <p>5. CCO 33-S1 (OTD2), Extend Maintenance of Temporary Trestle, \$238,256</p> <p>6. CCO 911-S0 (YBITS1), CCTV Security Camera Networking and Video Management System, \$1,500,000</p>	
<p>3. PROGRESS REPORTS</p> <p>a. Project Progress and Financial Update May 2013</p> <ul style="list-style-type: none"> • P. Lee presented the draft version 5.0 of the May 2013 monthly report, (copies handed out), for TBPOC information. ○ A section on bolt issues has been incorporated in the report (pages 2 and 3). ○ The report, when edited and completed, will be approved by the PMT under a TBPOC-delegated authority. 	
<p>4. PROGRAM ISSUES</p> <p>a. Bay Bridge East Span Opening Event</p> <ul style="list-style-type: none"> • S. Maller reported that Hartmann is planning a portable, one-day event that would be ready to go at any time. ○ Approximately 30,000 people have expressed interest in the bridge walk. ○ The Chair noted that per agreement with the Bay Bridge Alliance (BBA), the TBPOC is owed two monthly fundraising reports. <p>b. Sawtooth (IERBYS) Building and Site Improvements</p> <ul style="list-style-type: none"> • A. Fremier gave an update of ongoing activities, presented supporting slides, and requested TBPOC approval to proceed with CCOs (321 S1/TBD) in the not-to-exceed amounts of \$1.6 M and \$3.2 M for the Sawtooth remaining 	<ul style="list-style-type: none"> • Staff to obtain monthly reports from BBA. • The TBPOC APPROVED an amount not to exceed \$4.8 M for the Sawtooth non-seismic building and outdoor site improvements, as presented.

(Continued)

Items	Action
<p>non-seismic renovation work and outdoor site improvements, respectively.</p> <ul style="list-style-type: none">○ Discussion items included: scope of work; sources of funding/availability of funds; Building Official input, change of occupancy/codes; Gateway Park reference.	
<p>5. SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES</p> <p>a. E2 Update</p> <ol style="list-style-type: none">1. Budget Authorization<ul style="list-style-type: none">• B. Maroney asked for TBPOC approval of the overall budget request of \$10 M, under PMT close management.○ The Chair indicated that the TBPOC would like to see a schedule for the work, and that they would make themselves available for a conference call in the next week to act on CCO requests beyond \$7.5 M.2. Testing Program<ul style="list-style-type: none">• B. Maroney gave an update and indicated that field work is continuing; extra work hours are being expended; tower base anchor rod hardness testing is nearly done with crews moving to the next task; METS hiring of the largest test labs.○ The Chair referred to the % Completed columns of the SAS A354BD Bolt Tests sheet and noted that they show mostly 0%.<ul style="list-style-type: none">➤ M. Wahbeh explained that the figures are not up to date and that the tests will be done by June 21.➤ B. Maroney assured that if they are not 100% completed by then, they will show at least 90%.3. Contract Change Order Nos. 313, 320, 325, 326 and 327	<ul style="list-style-type: none">• The TBPOC APPROVED an overall E2 budget in an amount not to exceed \$7.5 M, with the expectation of a schedule by next week.

(Continued)

Items	Action
<ul style="list-style-type: none"> • TBPOC deferred action on this item until the Claim Settlement Report (CSR) is approved. <p>b. Corridor Update/Schedule</p> <ul style="list-style-type: none"> • Not discussed. 1. Labor Day Weekend Construction Schedule <ul style="list-style-type: none"> ○ D. Vilcheck handed out a revised Labor Day 2013 SFOBB Bridge Closure August 28 – 8 PM to September 3 – 5 AM Summary Schedule and two renderings of Seismic Safety Opening and Seismic Safety Opening Weekend Work, and gave an update: <ul style="list-style-type: none"> ➢ Three prime contractors and 12 subcontractors will be moving in and out of the jobsite, doing everything to ensure smooth internal traffic control; ➢ There will be close coordination with the opening event planners, a seamless one expected between Construction and Hartmann; ➢ There will be a command center; weekly and monthly coordination meetings ongoing; BART agreeable with full five-day around-the-clock schedule. ○ With or without a bridge opening event, contingencies have been established, and construction tasks will still need to be done after Sunday, September 1st. 2. Labor Day Communications Plan <ul style="list-style-type: none"> • A. Gordon provided an update of the bridge closure/opening communications plan, for TBPOC information. ○ Prior to launch of media events, examples of messaging, e.g., press releases, transit collateral, public service announcements (PSAs), etc., will be presented to the TBPOC for 	<ul style="list-style-type: none"> • The TBPOC DEFERRED action on CCOs 313, 320, 325, 326 and 327.

(Continued)

Items	Action
review and approval. <ul style="list-style-type: none">○ These will be ready to go when the decision is made on July 10.	
6. OTHER BUSINESS <ul style="list-style-type: none">• B. Maroney reported that Peer Review Panel members F. Seible and J. Fisher will be meeting tomorrow and taking a tour of the bridge, bolts and work underway.○ Peer Review Panel member I. Idriss took a tour yesterday.• A. Boutros suggested moving the TBPOC July 11 meeting to July 10, since all the TBPOC members will be at the BATA OC meeting on that day.	<ul style="list-style-type: none">• The three Peer Review Panel members to be invited to attend the BATA Oversight Committee meeting on July 10 and the TBPOC meeting on June 25.• Staff to reschedule the TBPOC July 11 meeting to July 10.

Adjourned: 2:52 PM

TBPOC MEETING MINUTES
June 6, 2013, 1:30 PM – 2:30 PM

APPROVED BY:

STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority

Date

ANDRE BOUTROS,
Executive Director, California Transportation Commission

Date

MALCOLM DOUGHERTY
Director, California Department of Transportation

Date

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** July 2, 2013

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 2b1
Item- Consent Calendar – Contract Change Orders (CCOs)
Yerba Buena Island Transition Structure (YBITS) 1 CCO 197-S0 –
Polyester Concrete Overlay at West Tie-In

Recommendation:
APPROVAL

Cost:
\$1,779,919.00

Schedule Impacts:
N/A

Discussion:
CCO 197-S0 in the amount \$1,779,919.00 will provide for revising the staging and additional changes related to the installation of polyester concrete overlay at the West Tie-In structure on Yerba Buena Island.

Originally, this work was part of the YBITS 2 contract scheduled for completion in late 2014. The work is being advanced into the YBITS 1 contract in order to complete this portion of the poly overlay prior to the seismic safety opening (SSO) of the Bridge, since the other portions of the bridge (SAS, YBITS, OTD) and the YBI tunnel (being resurfaced under YBITS CCO 184) will have completed pavement surfaces for the SSO. The area includes the eastbound and westbound roadway from the west end of the YBITS structures to the east end of the YBI tunnels, approximately 150 meters long. The work will be deleted from the YBITS 2 contract and a credit is being negotiated with the contractor. Additional costs will be incurred to repair existing underlying pavement, and making a transition from a roadway section, with a grade break in the middle, to a section with a super-elevated geometry.

Risk Management:

The scope of the work for this CCO was originally included in the YBITS2 contract and accounted for in the first quarter of the 2013 YBITS2 cost forecast. Potential risks associated with this work were identified in both the project and program risk registers.

Memorandum

The Program Risk Register had Risk #63 (Coordination of contracts on YBI) with a very high probability of costing between \$1- \$5 million and the YBITS1 Risk Register had CCO Risk #1004 (Polyester Overlay @ WTI Phase 1) costing between \$100,000.00- \$300,000.00. Therefore, the cost of this CCO is below the combined risks identified in the Q1 2013 Risk Management draw curve.

Attachment(s):

1. Draft CCO: 197-S0
2. Draft CCO Memo: 197-S0

CONTRACT CHANGE ORDER**DRAFT**

Change Requested by: Engineer

CCO 197	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID
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To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Add the following work:

Removal of existing surfacing and installing polyester concrete overlay for I-80 Station E 49+59.250 to 51+17.497 (lower deck) per revised Contract Drawings 2R2, 3R1, 5R1, 110R1, 111R2 and new sheets 2S1 and 14S1 (Sheets 4 through 10 of this change order); and for Station W 50+25 (approximately) to 51+28.340 (upper deck) per new sheets xx and yy (sheets 11 through 12 of this change order).

Work is to be completed prior to the traffic shift onto the new Bay Bridge. The traffic shift will occur during a full bridge closure, currently scheduled for several days over Labor Day Weekend 2013, or at another time as determined by the Engineer. Traffic control for the full bridge closure will be performed by others.

After this overlay work is completed, the pavement delineation for the areas involved in this change order will be completed during the full bridge closure. The pavement delineation work is already included in the contract.

Pricing of this change order assumes that the following portions of the grinding and overlay are performed prior to the full bridge closure:

- All work on the closed side of K-rail that is accessible.
- Upper deck AC in the travelled lanes may be removed during the week before the planned full bridge closure, utilizing lane closures in accordance with Special Provision Section 10-1.31, "Maintaining Traffic". Lane closures may be provided either under this or another change order, or by others as directed by the Engineer.

The remaining portions of the grinding and polyester overlay (both decks) will be completed during the full bridge closure. All work shall be coordinated with other projects, as approved by the Engineer.

Construction operations on the westbound upper deck between Station 50+00 and 51+40 shall be limited to control the loads on the structure, as approved by the Engineer. For any polyester concrete operations prior to the full bridge closure, Lane 5 should be closed during the operation, and only one operation at a time will be allowed on the west tie-in structure.

Changes shown on the new or revised drawings that are associated with the barrier rails and crash cushions will be addressed under a separate change order.

Estimate of Decrease in Contract Item at Contract Price:

Item No. 40: REMOVE EPOXY ASPHALT CONCRETE SURFACING	
-212.15 M2 (-106.08%)	\$40.00 /M2 = -\$8,486.00 (-100.00%)

Estimated total cost for Decrease in Contract Item.....(\$8,486.00)

Any adjustment in compensation due in accordance with Section 4-1.03B(2), "Decreases of More Than 25 Percent", of the Standard Specifications for the above item is included in the Adjustment in Compensation at Lump Sum included below, and no further adjustment in compensation will be made.

Extra Work at Force Account:

As authorized by the Engineer, and in accordance with Section 4-1.03D, "Extra Work", and Section 9-1.03, "Force Account Payment", of the Standard Specifications, and Section 5-1.17, "Force Account Payment", of the Special Provisions, provide all labor, equipment and materials necessary to sawcut and install expansion joints; repair unsound underlying concrete; temporarily move and replace K-rails while performing upper deck AC removal before the full bridge closure; and perform other work as directed by the Engineer.

Estimate of Extra Work at Force Account = \$100,000.00

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO 197	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID
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Adjustment of Compensation at Unit Price:

1) FURNISH POLYESTER CONCRETE OVERLAY 212 M3 @ \$3,492.00/M3 = \$740,304.00

Lane closures for this work (not associated with full bridge closure by others):

2) Mainline I-80 Lane Night Closure (when labor rates are paid at straight time - Monday through Friday night into Saturday AM; 8 hour maximum closure), 10 EA @ \$3,325.00/EA = \$ 33,250.00

3) Mainline I-80 Lane Night Closure (when labor rates are at time and one-half - Saturday night to Sunday AM; 8 hour maximum closure) 2 EA @ \$4,319.00/EA = \$ 8,638.00

4) Mainline I-80 Lane Night Closure (when labor rates are double time - Sunday night to Monday AM or Holiday to following day; 8 hour maximum closure) 1 EA @ \$5,161.00/EA = \$ 5,161.00

5) Extending Mainline I-80 Lane Closure: Additional hours (when labor rates are at time and one-half) 20 HR @ \$ 422.00/HR = \$ 8,440.00

6) Extending Mainline I-80 Lane Closure: Additional hours (when labor rates are at double time) 10 HR @ \$ 528.00/HR = \$ 5,280.00

The agreed unit prices for lane closures include the labor, equipment and materials as required to close one, two or three lanes in one direction (Eastbound or Westbound Interstate 80), as determined by the Engineer.

The agreed prices include all labor, equipment and material as required. The agreed prices constitute full payment, including all markups, for this change.

Adjustment of Compensation at Agreed Unit Price = \$801,073.00

Adjustment of Compensation at Lump Sum:

Remove all epoxy asphalt and Portland Cement Concrete (PCC) surfacing as required; prepare concrete bridge deck surface; removal of all unsound concrete; place polyester concrete overlay. Price includes mobilization for this operation, and overtime premiums as required to complete the work as described.

This price includes all materials, labor and equipment to complete the work within the time span determined during the full bridge closure; and providing adequate backup equipment on-site to accommodate any breakdowns or unknowns that may exist during the closure. The price anticipates that when scheduled to do so through the full bridge closure, the Contractor will work continuously on these operations without long breaks or interruptions; this may require multiple shifts and crews; and include overtime and shift differential premiums.

The work for grinding and removing existing surfaces includes epoxy AC and the top portions of several existing PCC at-grade beams at the lower deck. The AC pavement also includes areas that were previously thickened to provide a higher grade elevation for the temporary roadway alignment. The additional removal of all these sections is included in the price of this change order.

The as-builts for the area show that there are joints in the area of removal; prior work in the area has indicated that some joints and existing steel plate manhole covers may not correctly show on the as-builts.

The price includes the cost for the time and effort to remove excess materials ordered from the project site at the end of the project. The Contractor will assure that enough material will be on-site so that there is no shortage of materials, and the cost of the effort to remove excess materials from the project is covered in this price, except that if the quantity of excess materials exceeds 14 M3, the restocking charge by the supplier will be reimbursed separately.

Adjustment of Compensation at Agreed Lump Sum = \$887,332.00

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO 197	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID
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Estimated Cost: Increase ☒ Decrease ☐ \$1,779,919.00

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by		
Signature	Resident Engineer William Howe, Senior R.E.	Date
Approval Recommended by		
Signature	Region Construction Division Chief Tony Anziano	Date
Engineer Approval by		
Signature	Region Construction Division Chief Tony Anziano	Date

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by		
Signature	(Print name and title)	Date

DRAFT**CONTRACT CHANGE ORDER MEMORANDUM**

DATE: 6/26/2013 Page 1 of 1

TO: Deanna Vilcheck, ACM /		FILE: E.A. 04 - 0120S4	
FROM: William Howe, Senior R.E.		CO-RTE-PM SF-80-12.7/13.2	
FED. NO. NO FED AID			
CCO#: 197	SUPPLEMENT#: 0	Category Code: CJPT	CONTINGENCY BALANCE (incl. this change) \$27,668,540.15
COST: \$1,779,919.00		INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>	HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
SUPPLEMENTAL FUNDS PROVIDED: \$0.00		IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Polyester Concrete Overlay @ West Tie-in		PROJECT DESCRIPTION: YBITS-1 (Yerba Buena Island Transition Structures)	
Original Contract Time: 1390 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 0 Day(s)	Percentage Time Adjusted: (including this change) 0 %
		Total # of Unreconciled Deferred Time CCO(s): (including this change) 9	

THIS CHANGE ORDER PROVIDES FOR:

This change order provides for revising the staging and additional changes related to the installation of polyester concrete overlay at the west tie-in structure on Yerba Buena Island. This work originally was included in the YBITS-2 contract, with the work scheduled for completion late 2014. The work is being advanced into the YBITS-1 contract in order to complete this portion of the poly overlay prior to the Seismic Safety Opening (SSO) of the Bridge. Since the other portions of the bridge (SAS, YBITS, OTD) and the YBI tunnel will have completed pavement surfaces for the SSO, this will allow all sections of the new bridge to have a completed pavement surface upon the SSO. Since the YBITS-2 Contractor has not yet moved appropriate field forces for this operation onto the contract site, the work will be deleted from the YBITS-2 contract (with a credit CCO being issued), and the YBITS-1 Contractor will complete this work under this CCO. The additional changes include repairs to the existing underlying pavement, and increased quantities due to making a transition from a roadway section with a grade break in the middle to a section with a planar cross-section.

The CCO will be issued as Extra Work at Force Account for \$100,000.00; Adjustment of Compensation at Agreed Lump Sum for \$887,332.00; Adjustment of Compensation at Agreed Unit Prices for \$801,073.00; and Decrease in Contract Item for <\$8,486.00>, for a total cost of \$1,779,919.00, which will be financed from the contract's contingency fund. A cost analysis is on file.

This CCO was requested by Bob Zandipour, Toll Bridge Senior Transportation Engineer, Design, on May 7, 2013.

Maintenance concurrence will be obtained from Lina Ellis, Structures Maintenance.

No adjustment of contract time is warranted, as this change will not affect the controlling operation.

CONCURRED BY:			ESTIMATE OF COST	
Construction Engineer:	William Howe	Date	THIS REQUEST	TOTAL TO DATE
Bridge Engineer:	Mehran Ardakanian	Date	ITEMS (\$8,486.00)	(\$8,486.00)
Project Engineer:	Bob Zandipour, Design	Date	FORCE ACCOUNT \$100,000.00	\$100,000.00
Project Manager:	Ken Terpstra	Date	AGREED PRICE \$0.00	\$0.00
FHWA Rep.:		Date	ADJUSTMENT \$1,688,405.00	\$1,688,405.00
Environmental:		Date	TOTAL \$1,779,919.00	\$1,779,919.00
Other (specify):	Lina Ellis, Str. Maintenance	Date	FEDERAL PARTICIPATION	
Other (specify):		Date	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING	
District Prior Approval By:		Date	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)	
HQ (Issue Approve) By:		Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS	
Resident Engineer's Signature:		Date	FEDERAL FUNDING SOURCE	PERCENT

Memorandum

TO: Toll Bridge Program Oversight Committee **DATE:** July 2, 2013
(TBPOC)

FR: Andrew Fremier, Deputy Executive Director, Operations, MTC/BATA

RE: Agenda No. - 3a
Progress Reports
Item- Project Progress and Financial Update June 2013

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Included in this package is a draft Project Progress and Financial Update June 2013, yet to be approved by the PMT under a TBPOC-delegated authority.

Attachment(s):

Project Progress and Financial Update June 2013 (see front of binder)

San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

**Project Progress
and Financial Update**

June 2013

DRAFT VERSION 4.0



**TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE**

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

Released: July 2013



The San Francisco-Oakland Bay Bridge Self-Anchored Suspension Span Tower with Catwalks, Scaffolding, Crane and Elevator Removed



San Francisco-Oakland Bay Bridge
Self-Anchored Suspension Bridge Bolt Cutting at
Pier E2

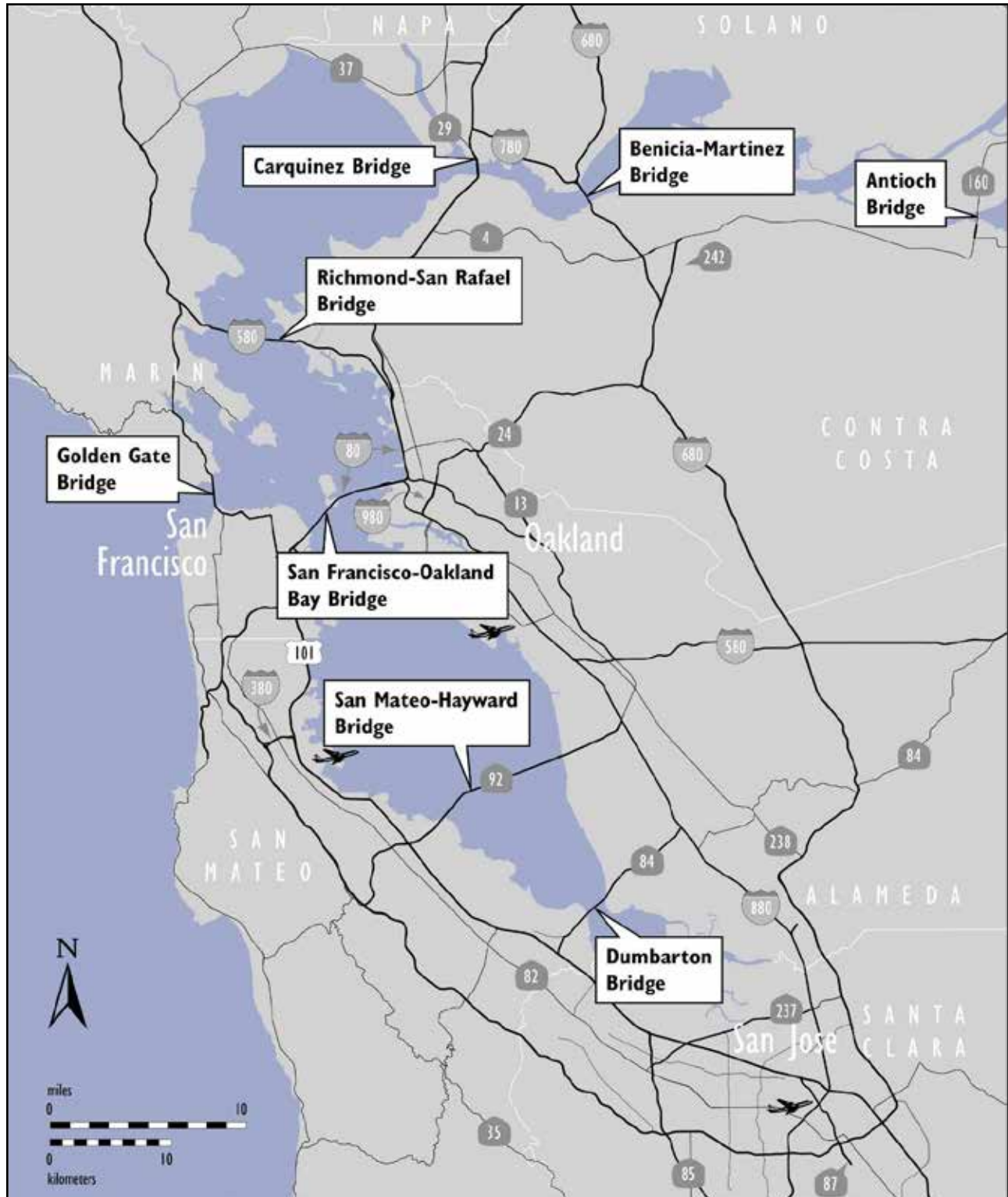


The San Francisco-Oakland Bay Bridge Self-Anchored Suspension Span
Suspender Rope Separator Installation

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Map of Bay Area Toll Bridges



* The Golden Gate Bridge is owned and operated by the Golden Gate Bridge, Highway and Transportation District.

Introduction

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the new Benicia-Martinez Bridge and State Toll Bridge Seismic Retrofit Program (TBSRP) projects. The TBPOC consists of the Director of the California Department of Transportation (Caltrans), the Executive Director of the Bay Area Toll Authority (BATA) and the Executive Director of the California Transportation Commission (CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the Committee), and keeping the Legislature and others apprised of current project progress and status. In January 2010, Assembly Bill (AB) 1175 (Torlakson) amended the TBSRP to include the Antioch and Dumbarton Bridges seismic retrofit projects. The current TBSRP is as follows:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
Dumbarton Bridge Seismic Retrofit	Complete
Antioch Bridge Seismic Retrofit	Complete
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Complete
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
1958 Carquinez Bridge Seismic Retrofit	Complete
1962 Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The New Benicia-Martinez Bridge is part of a larger program of toll-funded projects called the Regional Measure 1 (RM1) Toll Bridge Program under the responsibility of BATA and Caltrans. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

Regional Measure 1 Projects	Open to Traffic Status
Interstate 880/State Route 92 Interchange Reconstruction	Open
1962 Benicia-Martinez Bridge Reconstruction	Open
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Cross Section of Broken Bolt

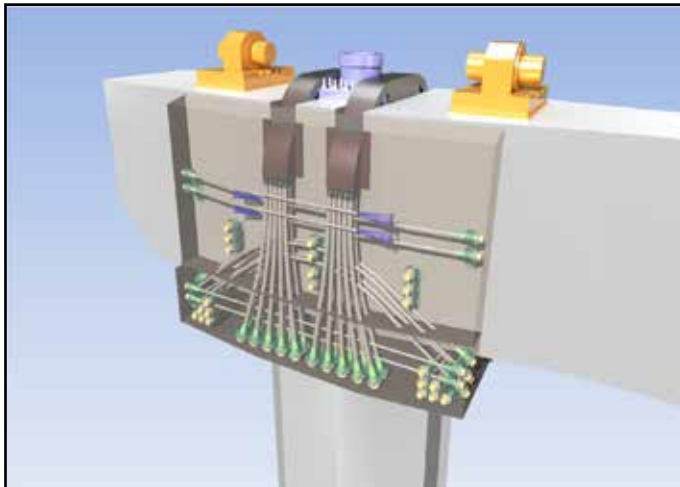
The San Francisco-Oakland Bay Bridge Bolt Issues

Within days after tensioning was performed, the anchor bolts in the shear keys directly below the eastbound and westbound Orthotropic Box Girder (OBG) structures (known as shear keys S1 and S2) began to fail. A total of 32 out of the 96 anchor bolts broke before Caltrans directed the contractor to reduce the anchor bolt tension to prevent further failures.

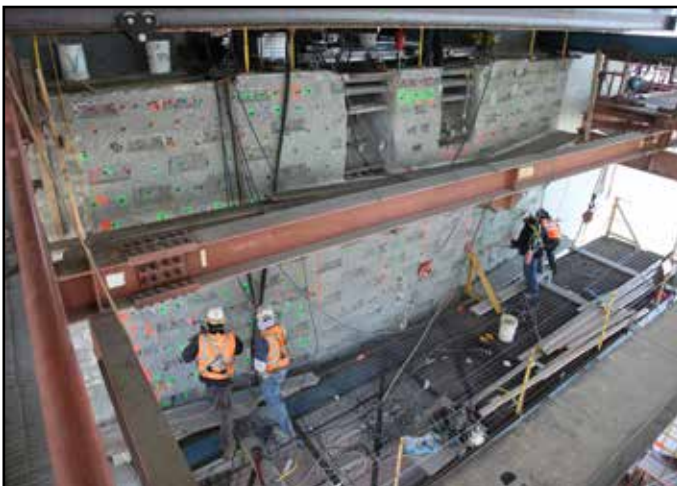
A forensic metallurgic examination was jointly performed with both the contractor's and Materials Engineering and Testing Services' (METS) metallurgical experts. It was determined that while the failed bolts' material properties did meet the contract specifications, the hardness properties were at the upper limit and the ductility and toughness properties were at the lower limit. Taking this high-end hardness and low-end ductility into account and combining it with a high tensile stress (0.70 Fu) makes this material more susceptible to the effects of hydrogen cracking (also known as hydrogen embrittlement). The metallurgical examination indicated that the bolts were susceptible to hydrogen embrittlement due to a lack of uniformity in the microstructure of the rods.

The anchor bolts at shear keys S1 and S2 are uniquely different from the anchor bolts at the remaining shear keys and bearings (known as shear keys S3 and S4 and bearings B1, B2, B3, and B4) in that they were manufactured in 2008 as opposed to the remaining ones in 2010. In addition, due to physical limitations, the anchor bolts at shear keys S1 and S2 have their anchors fully cast into the pier E2 cap and are not replaceable, as opposed to the remaining shear keys and bearings which are through bolted and thus replaceable. As such, shear keys S1 and S2 will require an alternate anchorage solution.

On May 8, 2013, the TBPOC selected a retrofit design strategy that will replace clamping force provided by the 2008 rods with steel saddles that are cinched down with post-tensioning cables (see rendering on left). Caltrans and the contractor are currently determining the cost and schedule impacts of the solution.



Rendering of E2 Retrofit Strategy



E2 Saddle Retrofit Progress

There were other A354-grade BD galvanized rods of varying diameter and length that the TBPOC is now evaluating to determine their quality and fitness for use on the project. To date, these other installed rods have been tensioned to their design loads from at least two months to several years. Caltrans has visually inspected the accessible bolts and have found the rods to be performing as designed.

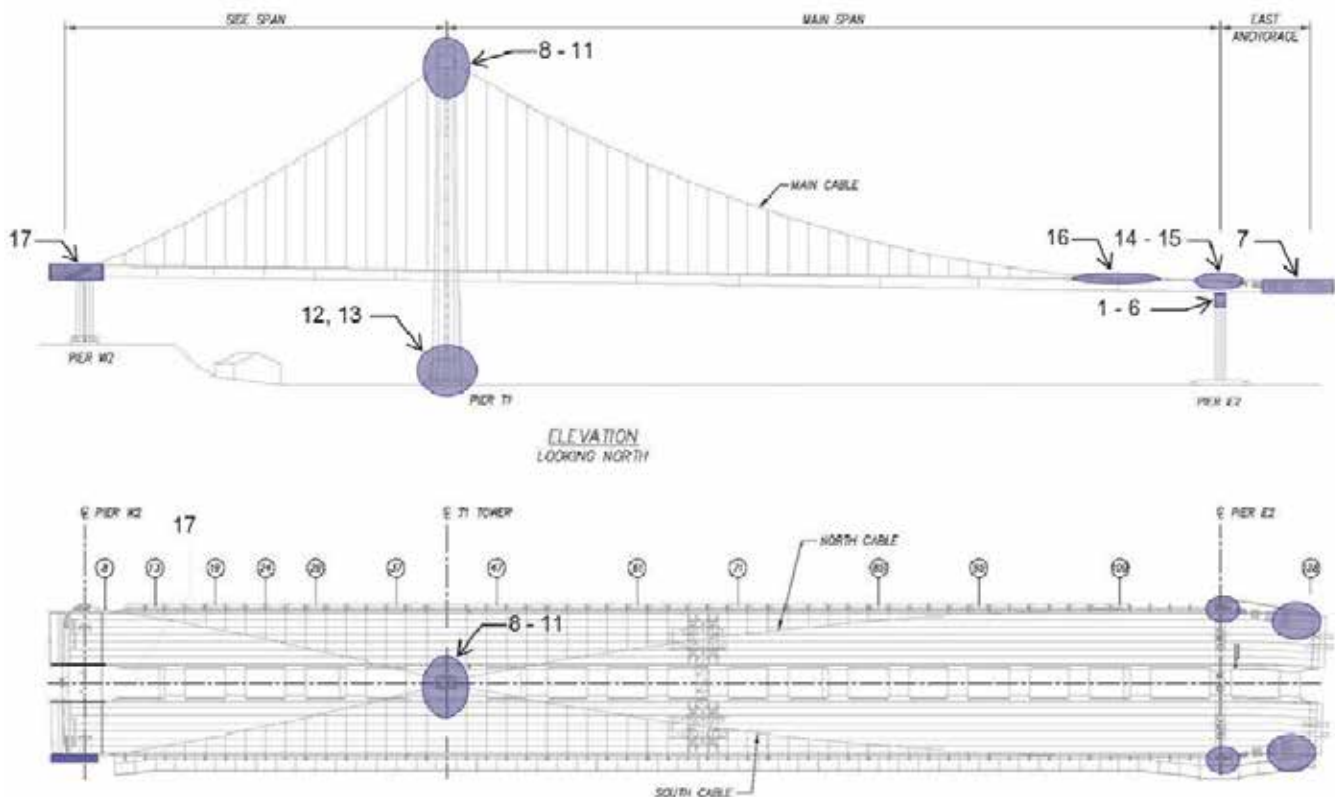
In addition to the visual inspections, Caltrans has been performing extensive supplemental tests on the rods to identify any differences between them and to those of the 2008 rods, and to evaluate their capacity to perform as designed.

At this time, it is unknown whether the schedule to open the new East Span to traffic after Labor Day weekend will be affected. The TBPOC has been providing regular updates on this issue to the public at Bay Area Toll Authority meetings.



Bolt Hardness Testing

ASTM A354 Gr. BD Rods Across SFOBB



SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



The San Francisco-Oakland Bay Bridge Self-Anchored Suspension Bridge from east end and Bikepath Belvedere Looking east



The San Francisco-Oakland Bay Bridge Self-Anchored Suspension Bridge Milling the north Face of Shearkey S1 Base



Self-Anchored Suspension Bridge Sandblasting south Main Span Deck Panel

Toll Bridge Seismic Retrofit Program Risk Management

A major element of the 2005 AB 144, the law creating the TBPOC, was legislative direction to implement a more aggressive risk management program. Such a program has been implemented in stages over time to ensure development of a robust and comprehensive approach to risk management. A comprehensive risk assessment is performed for each project in the program on a quarterly basis.

Based upon those assessments, a forecast is developed using the average cost of risk. These forecasts can both increase and decrease as risks are identified, resolved or retired. The program contingency is currently \$329 million in accordance with the TBPOC approved budget. As of the end of the first quarter of 2013, the 50 percent probable draw on program contingency is \$103 million. The potential draw ranges from about \$25 million to \$175 million.

The current program contingency balance is sufficient to cover the cost of currently identified risks. In accordance with the approved TBSRP Risk Management Plan, risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Replacement Project Self-Anchored Suspension (SAS) Bridge Superstructures Contract

A joint venture of American Bridge/Fluor (ABF) is constructing the signature Self-Anchored Suspension (SAS) section of the new east span of the San Francisco-Oakland Bay Bridge. The SAS is a self anchoring suspension span with one main cable that anchors to the eastern end of the roadway deck, rather than to the ground anchorages. All major bridge components are now in place – the tower, roadway deck, and main cable and suspenders – and the weight of the span has been transferred from the temporary supports to the main cable.

Aside from the aforementioned replacement of the broken rods, remaining critical activities include painting, paving, striping, and installing and testing of the bridge's mechanical, electrical and plumbing systems. The goal of the TBPOC is to open the bridge to traffic in both directions by September 2013.

Yerba Buena Island Transition Structure (YBITS) #1 Contract

MCM Construction, Inc. is the prime contractor constructing the Yerba Buena Island Transition Structure #1 (YBITS #1) contract. Their work includes completing the remaining foundations and the bridge deck structure from the existing double deck Yerba Buena Island Tunnel to the SAS bridge.

MCM has substantially completed both the eastbound and westbound transition structures from the tunnel to Hinge K and is currently working on the completion of service platforms, lighting, signage, retaining walls and slope restoration.

Yerba Buena Island Transition Structure (YBITS) #2 and Cantilever Demolition Contract

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The contract also includes the cantilever truss demolition, eastbound on ramp and bike path construction. The contract was awarded to California Engineering Contractors Inc/Silverado Contractors Inc. Joint Venture on November 28, 2012. Initial startup activities and submittals began in March 2013, with actual dismantling to start in September 2013, after the planned seismic safety opening of the new bridge.

Oakland Touchdown #2 Contract

Flatiron West, Inc. is the prime contractor constructing the Oakland Touchdown #2 contract that will complete the remaining portions of the Oakland Touchdown approach structures from the existing toll plaza to the new span. The westbound structure and portions of the eastbound structure (not in conflict with the existing span) were constructed under the Oakland Touchdown #1 contract. The OTD #2 construction contract started on June 25, 2012. The mainline structure work is now substantially complete and the contractor is currently concentrating on the eastbound approach to the OTD structure, installation of ductbank conduits and wiring installation, and removal of falsework. After bridge opening, the contractor will complete landscaping of the area and will construct the remaining portion of the permanent bicycle/pedestrian pathway that is in conflict with the existing bridge by 2014.



The San Francisco-Oakland Bay Bridge and Self-Anchored Suspension Span on the left and the Existing Bridge on the right

Existing SFOBB Dismantling Contracts

To expedite the opening of a new eastbound onramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge has been incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contracts still in design. Caltrans plans on advertising the demolition of the 504 and 288 superstructures in late 2013. Marine foundation demolition will follow at a later time.



Existing San Francisco-Oakland Bay Bridge Cantilever Section to Be Dismantled as Part of the YBITS #2 Contract South of the New Bridge

Antioch Bridge Seismic Retrofit

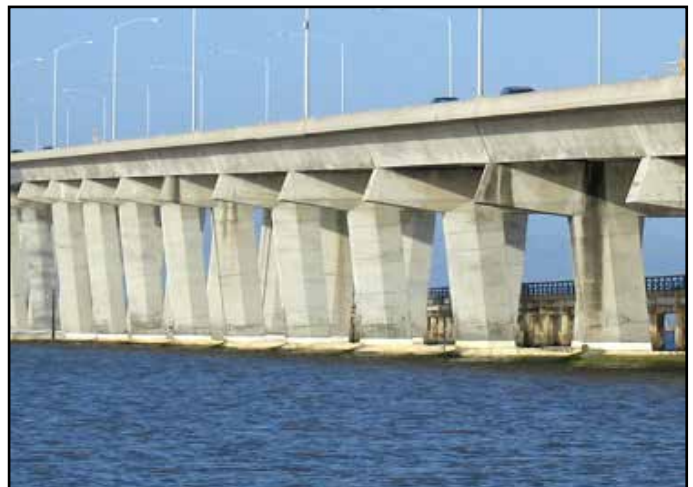
The major retrofit strategy for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents, and installing steel casings at all columns located at the Sherman Island approach slab bridge. Seismic safety opening was achieved on April 12, 2012, and contract was completed on July 13, 2012.



Antioch Bridge

Dumbarton Bridge Seismic Retrofit

The Dumbarton Bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, and precast pre-stressed concrete girders and steel box girders supported on reinforced concrete piers. The retrofit strategy for the bridge included superstructure and deck modifications and installation of isolation bearings. Seismic safety opening was achieved on January 16, 2013, and the contract was completed on May 15, 2013.



Dumbarton Bridge



San Francisco-Oakland Bay Bridge Bike Path Overlay Primer Being Applied in Preparation of Polyester Concrete Placement

Toll Bridge Seismic Retrofit Program Cost Summary (Millions)

	Contract Status	AB 144/SB 66 Budget (September 2005)	TBPOC Approved Changes	Current TBPOC Approved Budget (May 2013)	Cost to Date (May 2013)	Current Cost Forecast (May 2013)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
SFOBB East Span Seismic Replacement								
Capital Outlay Construction								
Skyway	Completed	1,293.0	(55.8)	1,237.2	1,237.3	1,237.2	-	●
SAS Marine Foundations	Completed	313.5	(38.7)	274.8	274.8	278.6	3.8	●
SAS Superstructure	Construction	1,753.7	293.1	2,046.8	1,814.4	2,059.3	12.5	●
YBI Detour	Completed	131.9	334.2	466.1	466.1	473.3	7.2	●
YBI Transition Structures (YBITS)		299.3	(3.9)	295.4	183.4	308.0	12.6	●
YBITS 1	Construction			199.7	174.6	213.7	14.0	●
YBITS 2 Cantilever and Demo	Awarded			92.4	8.9	91.0	(1.4)	●
YBITS Landscaping	Design			3.3	-	3.3	-	●
Oakland Touchdown (OTD)		283.8	39.9	323.7	258.5	323.4	(0.3)	●
OTD 1	Completed			205.0	204.8	203.3	(1.7)	●
OTD 2	Construction			62.0	20.2	66.1	4.1	●
Detour	Completed			51.0	27.7	44.4	(6.6)	●
OTD Electrical Systems	Design			-	-	-	-	●
Submerged Electric Cable	Completed			5.7	5.7	9.6	3.9	●
Existing Bridge Demolition	Design	239.2	(0.1)	239.1	-	233.7	(5.4)	●
*Cantilever Section	Awarded			-	-	60.3		●
*504/288 Sections	Design			-	-	88.4		●
*Marine Foundations	Design			-	-	85.0		●
Stormwater Treatment Measures	Completed	15.0	3.3	18.3	16.9	18.3	-	●
Other Completed Contracts	Completed	90.4	(0.5)	89.9	90.0	90.5	0.6	●
Capital Outlay Support		959.3	262.3	1,221.6	1,140.6	1,279.4	57.8	●
Right-of-Way and Environmental Mitigation		72.4	-	72.4	51.7	80.4	8.0	●
Other Budgeted Capital		35.1	(32.8)	2.3	0.7	7.7	5.4	●
Total SFOBB East Span Replacement		5,486.6	801.0	6,287.6	5,534.4	6,389.8	102.2	
Antioch Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Completed		51.0	51.0	47.0	50.3	(0.7)	●
Capital Outlay Support			31.0	31.0	23.5	23.8	(7.2)	●
Total Antioch Bridge Seismic Retrofit		-	82.0	82.0	70.5	74.1	(7.9)	●
Dumbarton Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Completed		92.7	92.7	63.1	69.5	(23.2)	●
Capital Outlay Support			56.0	56.0	43.6	45.4	(10.6)	●
Total Dumbarton Bridge Seismic Retrofit		-	148.7	148.7	106.7	114.9	(33.8)	●
Other Program Projects		2,268.4	(63.6)	2,204.8	2,164.3	2,192.5	(12.3)	
Miscellaneous Program Costs		30.0	-	30.0	25.5	30.0	-	●
Net Programmatic Risks		-	-	-	-	55.1	55.1	●
Program Contingency		900.0	(571.1)	328.9	-	225.6	(103.3)	●
Total Toll Bridge Seismic Retrofit Program²		8,685.0	397.0	9,082.0	7,901.4	9,082.0	-	

Toll Bridge Seismic Retrofit Program Schedule Summary

	AB 144/SB 66 Project Completion Schedule Baseline (July 2005)	TBPOC Approved Changes (Months)	Current TBPOC Approved Completion Schedule (April 2013)	Current Completion Forecast (April 2013)	Schedule Variance (Months)	Schedule Status	Remarks/ Notes
	g	h	i = g + h	j	k = j - i	l	
SFOBB East Span Seismic Replacement							
Contract Completion							
Skyway	Apr 2007	8	Dec 2007	Dec 2007	-	●	See Page 26
SAS Marine Foundations	Jun 2008	(5)	Jan 2008	Jan 2008	-	●	See Page 20
SAS Superstructure	Mar 2012	29	Aug 2014	Aug 2014	-	●	See Page 21
YBI Detour	Jul 2007	39	Oct 2010	Oct 2010	-	●	See Page 17
YBI Transition Structures (YBITS)	Nov 2013	27	Feb 2016	Feb 2016	-		See Page 18
YBITS 1			Dec 2013	Dec 2013	-		
YBITS 2			Feb 2016	Feb 2016	-	●	
Oakland Touchdown	Nov 2013	10	Sep 2014	Sep 2014	-	●	See Page 27
OTD 1			Jun 2010	Jun 2010	-	●	
OTD 2			Sep 2014	Sep 2014	-	●	
Submerged Electric Cable			Jan 2008	Jan 2008	-	●	
Existing Bridge Demolition	Sep 2014	18	Dec 2015	March 2017	15	●	
Stormwater Treatment Measures	Mar 2008		Mar 2008	Mar 2008	-	●	
SFOBB East Span Bridge Opening and Other Milestones							
Westbound Seismic Safety Open	Sep 2011	27	Dec 2013	Sep 2013	(3)	●	
Eastbound Seismic Safety Open	Sep 2012	15	Dec 2013	Sep 2013	(3)	●	
Bike/Ped Pathway Open to YBI			Sep 2015	Sep 2015	-	●	
Permanent Eastbound On Ramp Open			Sep 2015	Sep 2015	-		
Oakland Detour Eastbound Open			May 2011	May 2011	-	●	
Oakland Detour Westbound Open			Feb 2012	Feb 2012	-	●	
OTD Westbound Access			Aug 2009	Aug 2009	-	●	
YBI Detour Open			Sep 2009	Sep 2009	-		See Page 17
Antioch Bridge Seismic Retrofit							See Page 35
Contract Completion			Jul 2012	Jul 2012	-		
Seismic Safety Completion			Apr 2012	Apr 2012	-	●	
Dumbarton Bridge Seismic Retrofit							See Page 32
Contract Completion			Sep 2013	Mar 2013	(6)	●	
Seismic Safety Completion			Sep 2013	Jan 2013	(6)		

● Within approved schedule and budget

● Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated

● Known project impacts with forthcoming changes to approved schedules and budgets

⁽¹⁾ Figures may not sum up to totals due to rounding effects.

⁽²⁾ Construction administration of the OTD Detour is under the YBITS#1 contract.

⁽³⁾ Construction administration of the Cantilever segment will be under the YBITS#2 contract.

Regional Measure 1 Program Cost Summary (Millions)

	Contract Status	BATA Baseline Budget (July 2005)	BATA Approved Changes	Current BATA Approved Budget (May 2013)	Cost to Date (April 2013)	Current Cost Forecast (May 2013)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
Interstate 880/Route 92 Interchange Reconstruction								
Capital Outlay Construction	Complete	94.8	68.4	163.2	150.2	163.2	-	●
Capital Outlay Support		28.8	35.8	64.6	62.2	64.6	-	●
Capital Outlay Right-of-Way		9.9	7.3	17.2	15.4	17.2	-	●
Project Reserve		0.3	(0.3)	-	-	-	-	
Total I-880/SR-92 Interchange Reconstruction		133.8	111.2	245.0	227.8	245.0	-	
Other Completed Program Projects		1,978.8	182.6	2,161.4	2,089.4	2,161.4	-	
Total Regional Measure 1 Toll Bridge Program ¹		2,112.6	293.8	2,406.4	2,317.2	2,406.4	-	

- Within approved schedule and budget
 - Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
 - Known project impacts with forthcoming changes to approved schedules and budgets
- ¹ Figures may not sum up to totals due to rounding effects.

Regional Measure 1 Program Schedule Summary

	BATA Baseline Completion Schedule (September 2005)	BATA Approved Changes (Months)	Current BATA Approved Completion Schedule (May 2013)	Current Completion Forecast (May 2013)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i=g+h	j	k=j-i	l	
Interstate 880/Route 92 Interchange Reconstruction							
Contract Completion							
Interchange Reconstruction	Dec 2010	9	Sep 2011	Sep 2011	-	●	See Page 43



Self-Anchored Suspension Bridge east and westbound Decks Primed and Sandblasted in Preparation for Polyester Concrete Deck Overlay



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge Seismic Retrofit Strategy

When a 250-ton section of the upper deck of the East Span collapsed during the 7.1-magnitude Loma Prieta Earthquake in 1989, it was a wake-up call for the entire Bay Area. While the East Span quickly reopened within a month, a critical question lingered: How could the Bay Bridge - a vital regional lifeline structure - be strengthened to withstand the next major earthquake? Seismic experts from around the world determined that to make each separate element seismically safe on a bridge of this size, the work must be divided into numerous projects. Each project presents unique challenges. Yet there is one common challenge - the need to accommodate the more than 280,000 vehicles that cross the bridge each day.



The San Francisco-Oakland Bay Bridge West Approach Overview

West Approach Seismic Replacement Project

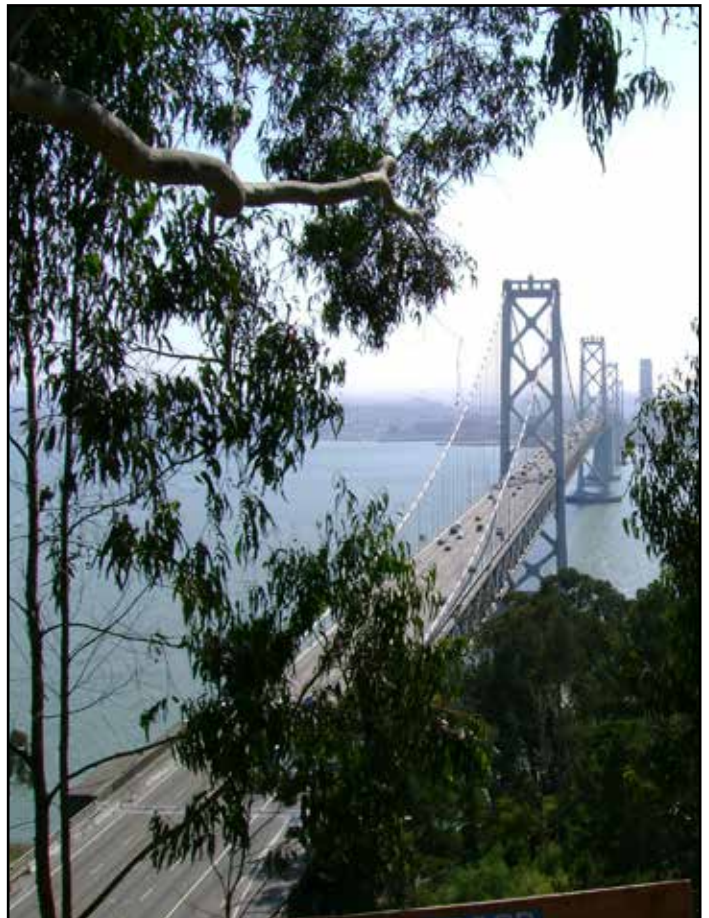
Project Status: Completed 2009

Seismic safety retrofit work on the West Approach in San Francisco, bounded on the west by Fifth Street and on the east by the anchorage of the west span at Beale Street, involved completely removing and replacing this one-mile stretch of Interstate 80, as well as six on-and off-ramps within the confines of the West Approach's original footprint. This project was completed on April 8, 2009.

West Span Seismic Retrofit Project

Project Status: Completed 2004

The West Span lies between Yerba Buena Island and San Francisco and is made up of two complete suspension spans connected at a center anchorage. Retrofit work included adding massive amounts of steel and concrete to strengthen the entire West Span, along with new seismic shock absorbers and bracing.



San Francisco-Oakland Bay Bridge West Span



East Span Seismic Replacement Project

Project Status: **In Construction**

Rather than a seismic retrofit, the two-mile long East Span is being completely rebuilt. When completed, the new East Span will consist of several different sections, but will appear as a single streamlined span. The eastbound and westbound lanes of the East Span will no longer include upper and lower decks. The lanes will instead be side-by-side, providing motorists with expansive views of the bay. These views will also be enjoyed by bicyclists and pedestrians, thanks to a new bike/pedestrian path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span is aligned north of the existing bridge to allow traffic to continue to flow on the existing bridge as crews build the new span.

The new span will feature the world's longest Self-Anchored Suspension (SAS) bridge that will be connected to an elegant roadway supported by piers (Skyway), which will gradually slope down toward the Oakland shoreline (Oakland Touchdown). A new transition structure on Yerba Buena Island (YBI) will connect the SAS to the YBI Tunnel and will transition the East Span's side-by-side traffic to the upper and lower decks of the tunnel and West Span.

When construction of the new East Span has been completed and vehicles have been safely rerouted to it, the original East Span will be demolished.



The Self-Anchored Suspension Bridge Tower and Roadway Deck Construction Progress Overview

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Summary

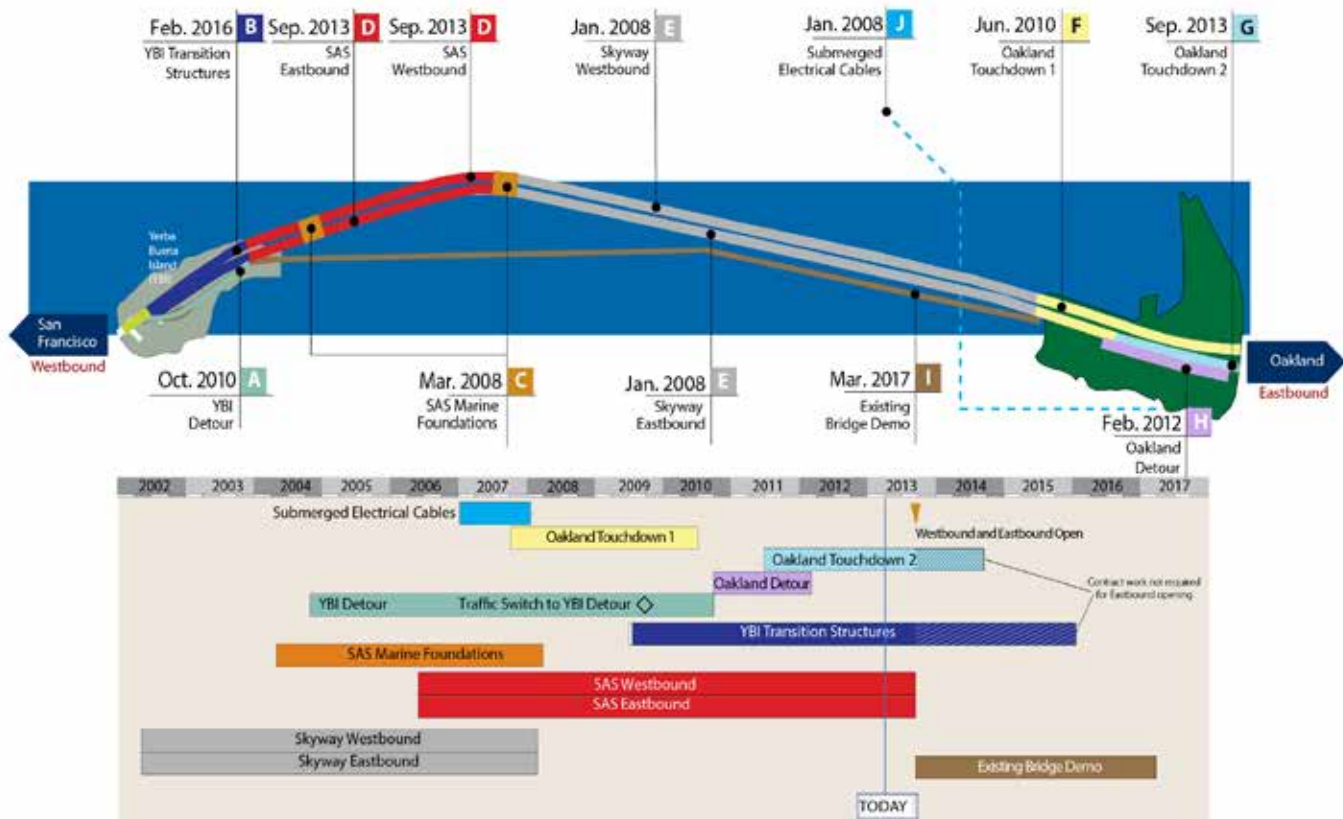
The new East Span bridge can be split into four major components - the Skyway, the Self-Anchored Suspension bridge in the middle, the Yerba Buena Island Transition Structures and Oakland Touchdown approaches. Each component is being constructed by one to three separate contracts that have been sequenced together to reduce schedule risk.

Highlighted below are the major East Span contracts and their schedules. The letter designation before each contract corresponds to contract descriptions in the report.



Overview of the San Francisco-Oakland Bay Bridge East Span Construction Progress

SFOBB East Span Work Sequence



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Detour (YBID)

As with all of the Toll Bridge Seismic Retrofit Program's projects, crews built the Yerba Buena Island Detour (YBID) structure without disrupting traffic. To accomplish this task, YBID eastbound and westbound traffic was shifted off the existing roadway and onto a temporary detour over Labor Day weekend 2009. Drivers will use this detour, just south of the original roadway, until traffic is moved onto the new East Span.

A YBID Contract

Contractor: C.C. Myers, Inc.

Approved Capital Outlay Budget: \$466.1 M

Status: Completed October 2010

This contract was originally awarded in early 2004 to construct the detour structure for the planned 2006 opening of the new East Span. Because of a lack of funding, the SAS Superstructure contract was re-advertised in 2005 and the opening was rescheduled to 2013. To better integrate the contract into the current East Span schedule and to improve seismic safety and mitigate future construction risks, the TBPOC approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over the Labor Day 2007 weekend advancing future transition structure foundation work and making design enhancements to the temporary detour structure. These changes increased the budget and forecast for the contract to cover the revised project scope and reduce project risks.



YBID East Tie-In Rolled in on Labor Day 2009 Weekend



West Tie-In Phase # 1 Rolled in on Labor Day Weekend 2007

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Transition Structures (YBITS)

The new Yerba Buena Island Transition Structures contract (YBITS) will connect the new SAS bridge span to the existing Yerba Buena Island Tunnel, transitioning the new side-by-side roadway decks to the upper and lower decks of the tunnel. The new structures will be cast-in-place reinforced concrete structures that will look very similar to the already constructed Skyway structures. While some YBITS foundations and columns were advanced by the YBID contract, the remaining work is being completed under three separate YBITS contracts.

The contract was awarded to California Engineering Contractors Inc/Silverado Contractors Inc. Joint Venture on November 28, 2012. Initial startup activities and submittals began in March 2013, with actual dismantling to start in September 2013, after the planned seismic safety opening of the new bridge.

Status: The contractor is holding partnering meetings with Caltrans and is in the process of reviewing RFIs, CCOs, SWPPP and bird nesting monitoring.

B YBITS #1 Contract

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: \$199.7 M

Status: 86% Complete as of May 2013

MCM Construction, Inc. is the prime contractor constructing the Yerba Buena Island Transition Structure #1 (YBITS #1) contract. Their work includes completing the remaining foundations and the bridge deck structure from the existing double deck Yerba Buena Island Tunnel to the SAS bridge.

Status: The contractor is working on the backfilling of the retaining wall and restoration of the slope. MCM installed the sign structures for the west and eastbound roadway decks and continues to work on the bike path support, service lighting pole service platforms and electronic communication conduits and camera wiring installation.

YBITS #2 and Cantilever Demolition Contract

Contractor: CEC & Silverado (JV)

Approved Capital Outlay Budget: \$92.4 M

Status: Contract Awarded

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The contract also includes the cantilever truss demolition, and bike path construction.

YBITS Landscaping Contract

Contractor: TBD

Approved Capital Outlay Budget \$3.3 M

Status: In Design

Upon completion of the YBITS #2 work, a follow-on landscaping contract will be executed to replant and landscape the area.

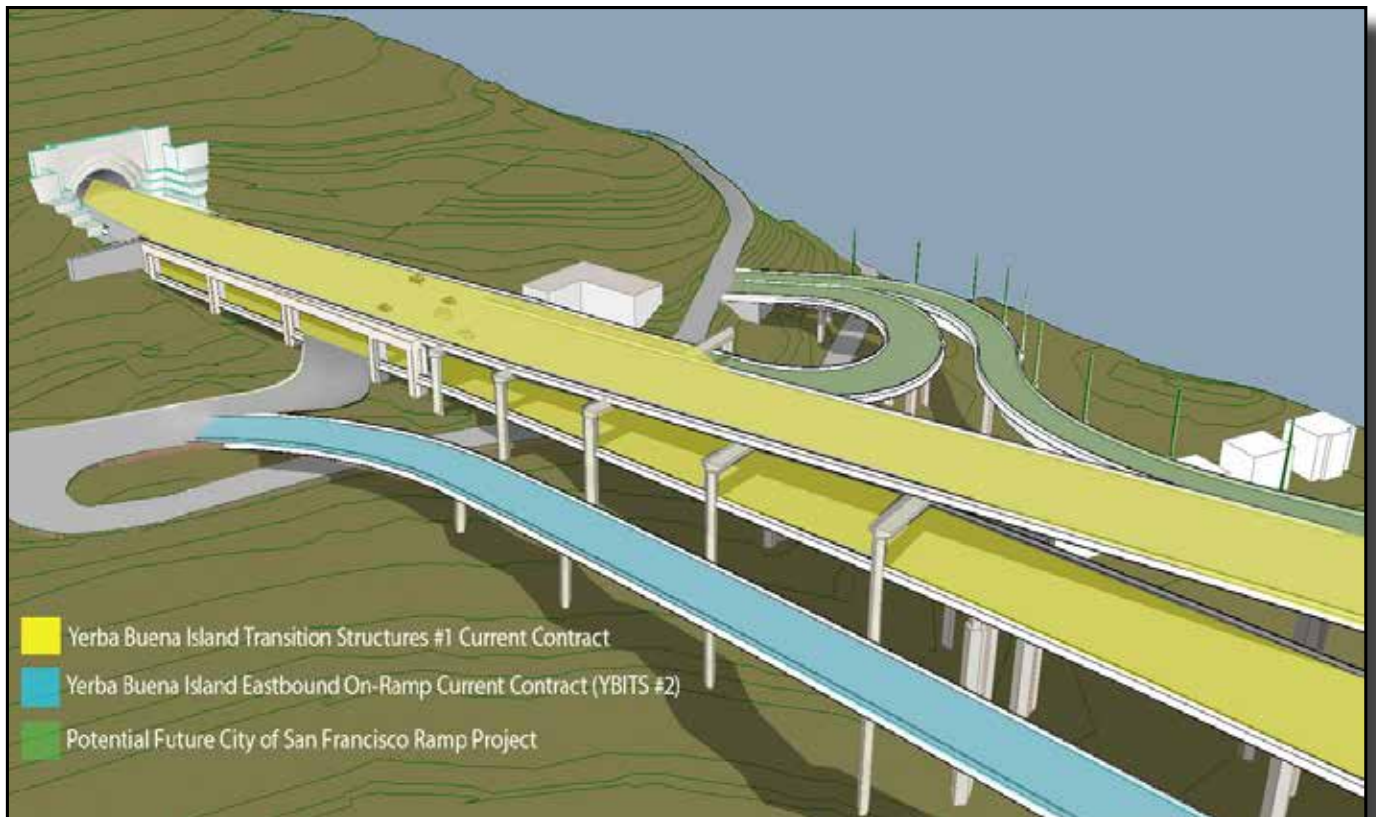


Aerial View of the Yerba Buena Island Transition Structures and the New San Francisco-Oakland Bay Bridge Bike Path Included in the YBITS #2 Contract





Aerial View of the Yerba Buena Island Transition Structures and the New Yerba Buena Island Transition Structure



- Yerba Buena Island Transition Structures #1 Current Contract
- Yerba Buena Island Eastbound On-Ramp Current Contract (YBITS #2)
- Potential Future City of San Francisco Ramp Project

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Self-Anchored Suspension (SAS) Bridge

If one single element bestows world class status on the new Bay Bridge East Span, it is the Self-Anchored Suspension (SAS) bridge. This engineering marvel will be the world's largest SAS span at 2,047 feet in length, as well as the first bridge of its kind built with a single tower.

The SAS was separated into three separate contracts - construction of the land-based foundations and columns at pier W2; construction of the marine-based foundations and columns at piers T1 and E2; and construction of the SAS steel superstructure, including the tower, roadway and cabling. Construction of the foundations at pier W2 and at piers T1 and E2 was completed in 2004 and 2007, respectively.

SAS Land Foundation Contract

Contractor: West Bay Builders, Inc.
Approved Capital Outlay Budget: \$26.5 M
Status: Completed October 2004

The twin W2 columns on Yerba Buena Island provide essential support for the western end of the SAS bridge, where the single main cable for the suspension span will extend down from the tower and wrap around and under the western end of the roadway deck. Each of these huge columns required massive amounts of concrete and steel and are anchored 80 feet into the island's solid bedrock.



SAS Marine E2 Foundation and the Skyway Westbound Column

C SAS Marine Foundations Contract

Contractor: Kiewit/FCI/Manson, Joint Venture
Approved Capital Outlay Budget: \$274.8 M
Status: Completed January 2008

Construction of the piers at E2 and T1 (see rendering on facing page) required significant on-water resources to drive the foundation support piles down, not only to bedrock, but also through the bay water and mud.

The T1 foundation piles extend 196 feet below the waterline and are anchored into bedrock with heavily reinforced concrete rock sockets that are drilled into the rock. Driven nearly 340 feet deep, the steel and concrete E2 foundation piles were driven 100 feet deeper than the deepest timber piles of the existing east span in order to get through the bay mud and reach solid bedrock.



D SAS Superstructure Contract

Contractor: American Bridge/Fluor Enterprises, Joint Venture

Approved Capital Outlay Budget: \$2.05 B

Status: 93% Complete as of May 2013

The SAS bridge is not just another suspension bridge. Rising 525 feet above mean sea level and embedded in bedrock, the single-tower SAS span is designed to withstand a massive earthquake. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. While there will appear to be two main cables on the SAS, it is actually a single continuous cable. This single cable will be anchored within the eastern end of the roadway, carried over the tower and then wrapped around the two side-by-side decks at the western end.

The single-steel tower is made up of four separate legs connected by shear link beams, which function much like a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs.

Two hundred steel wire suspender ropes attached to 100 cable bands along the single main cable did the heavy lifting during load transfer. Sets of suspender ropes were gradually tensioned using hydraulic jacks. As each cable

band carries two ropes, there are four hydraulic jacks (each exerting as much as 400 tons of force) at each corresponding location along the outside of the road decks tensioning and pulling the ropes into position. Following load transfer, remaining critical activities include wrapping of the main cable, painting, paving, striping, and installing and testing of the bridge's mechanical, electrical, and plumbing systems. The TBPOC's goal is to open the bridge to traffic in both directions by September 2013.

Status: The SAS bike path handrail installation continues, and the eastbound deck polyester concrete overlay placement will begin on June 21, 2013. SAS travelers have been installed and tested. PWS cable painting, suspender cleaning, caulking and painting finish work is ongoing. Hinge A pipe beam installation was completed in January 2013, and Hinge A deck installation was completed in May 2013. Electrical, mechanical and piping installation is ongoing. Lighting pole installation and barrier installation between SAS and YBITS is ongoing.



Architectural Rendering of New Self-Anchored Suspension Span and Skyway

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Construction Sequence

STEP 1 - CONSTRUCT TEMPORARY SUPPORT STRUCTURES

All temporary support foundations and structures were completed between the Skyway and Yerba Buena Island by September 2010 to support the westbound and eastbound roadway box erections.

Status: Removal of the westbound and eastbound temporary support structures and foundations will continue through late 2013.



STEP 2 - INSTALL ROADWAYS

All of the 28 steel roadway boxes and 17 crossbeams have been erected as of the end of October 2011.

Status: The SAS roadway mechanical, electrical and piping installation continues. Installation of Hinge A eastbound and westbound seismic joints was completed in May. Installation of the eastbound bike path railing and sandblasting and primer installation in Preparation for polyester concrete overlay is ongoing. Installation of the wind vortex continues. Lighting poles are being installed on the deck and traveler installation and testing was completed in May 2013. The SAS eastbound polyester concrete placement is scheduled to start in late June.



STEP 3 - INSTALL TOWER

All tower legs, tower grillage, tower saddle and tower head were erected using the self-rising crane as of mid-August 2012.

Status: Tower base shear-plate electrosag welding and NDT continues.



STEP 4 - MAIN CABLE AND SUSPENDER INSTALLATION

The main cable haul started from the east end of the westbound roadway deck moving over the tower saddle, wrapping around pier W2 west deviation saddles and returning to the tower saddle to the east end of eastbound roadway deck where it is anchored. The cable band and suspender cables were then installed to lift the roadway deck off the temporary support structure.

Status: Cleaning, caulking and painting of the suspenders finish work continues. Tower touch-up painting continues.



STEP 5 - WESTBOUND AND EASTBOUND SEISMIC SAFETY OPENING

The new bridge is expected to open simultaneously in both westbound and eastbound directions on Labor Day weekend 2013.

Status: The SAS, YBITS#1 and OTD#2 and the OTD approach construction activities are ongoing in support of the seismic safety opening scheduled for September 3, 2013; however, the fix for the shear key bolts replacement is critical for an on-time opening of the bridge. The TBPOC will determine the exact bridge opening date at a meeting scheduled for July 10, 2013.



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

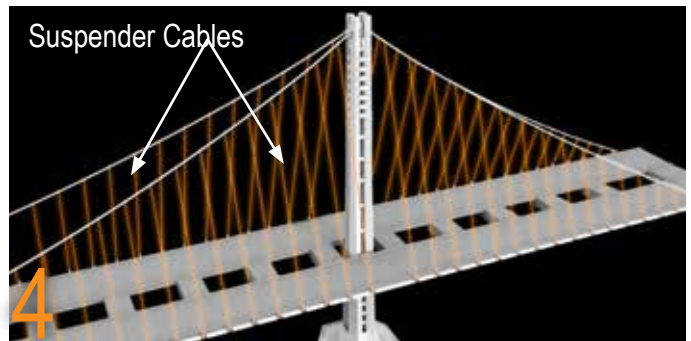
Self-Anchored Suspension (SAS) Superstructure Main Cable Completion Activities



1 CABLE STRAND HAULING

Crews haul the 137 individual steel wire strands that comprise the nearly 1-mile long single main cable. The strands are adjusted and then anchored into the east end of the SAS.

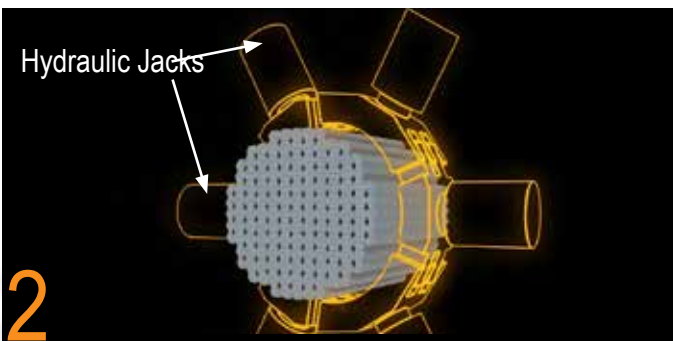
Status: Complete



4 SUSPENDER CABLES INSTALLATION

Workers begin placing the suspender cables that connect the main cable to the road-decks. Not all of the suspender cables need to be attached before load transfer begins.

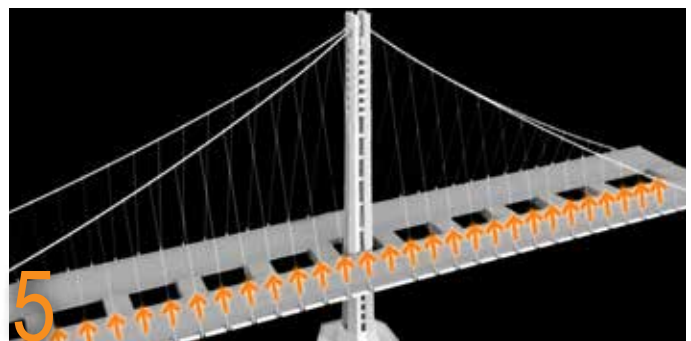
Status: Complete



2 CABLE STRAND COMPACTING

Four compacting machines containing hydraulic jacks are used to compress the 137 steel wire strands into the shape of the main cable. Temporary bands are placed to maintain the shape.

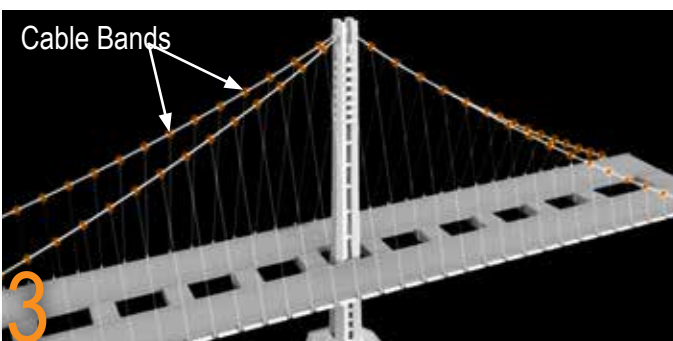
Status: Complete



5 LOAD TRANSFER (see facing page)

Using the attached suspender cables, crews begin the process of transferring the weight of the span from the temporary supports under the bridge to the main cable.

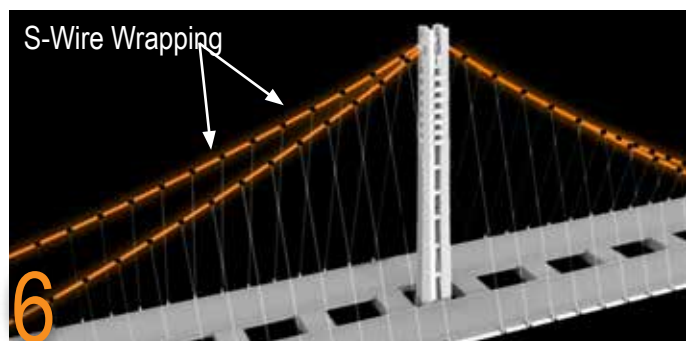
Status: Complete



3 CABLE BANDS INSTALLATION

Crews installed 114 permanent steel cable bands along the main cable. These bands maintain the shape of the cable, and serve as anchor points for the suspender cables.

Status: Complete



6 S-WIRE WRAP

After load transfer, the main cable is wrapped in S-wire to protect the cable against corrosion. After the cable is wrapped, it is painted.

Status: Complete

Load Transfer Sequence

Phase 1

Jack and tension 26 of 50 suspender groups each side – 8 at a time in 3 steps – 2 in the fourth step then final adjustments in steps 5 to 18. In the first 8 steps - 80% of the load will be transferred from the temporary truss to the cable.

Status: Complete

Load Transfer Phase 1

Phase 2

Jack and tension 3 more suspender groups out of 50 from each side to bring to a total of 29 of 50 each side.

Status: Complete

Load Transfer Phase 2

Phase 3

Jack and tension final 21 of 50 suspender groups each side to bring total suspenders tensioned to 50 out of 50 each side.

Status: Complete.

Load Transfer Phase 3

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Skyway

The Skyway, which comprises much of the new East Span, will drastically change the appearance of the Bay Bridge. Replacing the gray steel that currently cages drivers, a graceful, elevated roadway supported by piers will provide sweeping views of the bay.

E Skyway Contract

Contractor: Kiewit/FCI/Manson, Joint Venture

Approved Capital Outlay Budget: \$1.24 B

Status: Completed April 2008

Extending for more than a mile across Oakland mudflats, the Skyway is the longest section of the East Span. It sits between the new Self-Anchored Suspension (SAS) span and the Oakland Touchdown. In addition to incorporating the latest seismic-safety technology, the side-by-side roadway decks of the Skyway feature shoulders and lane widths built to modern standards.

The Skyway's decks are composed of 452 pre-cast concrete segments (standing three stories high), containing approximately 200 million pounds of structural steel, 120 million pounds of reinforcing steel, 200 thousand linear feet of piling and about 450 thousand cubic yards of concrete. These are the largest segments

of their kind ever cast and were lifted into place by custom-made winches.

The Skyway marine foundation consists of 160 hollow steel pipe piles measuring eight feet in diameter and dispersed among 14 sets of piers. The 365-ton piles were driven more than 300 feet into the deep bay mud. The new East Span piles were battered or driven in at an angle, rather than vertically, to obtain maximum strength and resistance.

Designed specifically to move during a major earthquake, the Skyway features several state-of-the-art seismic safety innovations, including 60-foot-long hinge pipe beams. These beams will allow deck segments on the Skyway to move, enabling the deck to withstand greater motion and to absorb more earthquake energy.

Status: All light poles will be delivered to the job site and installed by seismic safety opening.



Rendering of the New San Francisco/Oakland Bridge Skyway and Self-Anchored Suspension Bridge



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Oakland Touchdown

When completed, the Oakland Touchdown (OTD) structures will connect Interstate 80 in Oakland to the side-by-side decks of the new East Span. For westbound drivers, the OTD will be their introduction to the graceful new East Span. For eastbound drivers from San Francisco, this section of the bridge will carry them from the Skyway to the East Bay, offering unobstructed views of the Oakland hills.

The OTD approach structures to the Skyway will be constructed in three phases. The first phase, constructed under the OTD #1 contract, built the new westbound approach structure. Due to physical constraints with the existing bridge, the OTD #1 contract was only able to construct a portion of the eastbound approach. To facilitate opening the bridge in both directions at the same time, the second phase of work, performed by the Oakland Detour contractor, included widening the upper deck of the Oakland end of the existing bridge to allow for a traffic shift to the north that removes the physical constraint to completing the eastbound structure. This phase was completed in April 2012. The third phase, to be constructed by a future OTD #2 contract, will complete the eastbound lanes and provide the traffic switch to the new structure in both directions, thus allowing the bridge to open simultaneously in both directions.

F Oakland Touchdown #1 Contract

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: \$205.0 M

Status: Completed June 2010

The OTD #1 contract constructed the entire 1,000-foot-long westbound approach from the toll plaza to the Skyway. When open to traffic, the westbound approach structure will provide direct access to the westbound Skyway. In the eastbound direction, the contract constructed a portion of the eastbound structure and all of the eastbound foundations that are not in conflict with the existing bridge.

G Oakland Touchdown #2 Contract

Contractor: Flatiron West, Inc.

Approved Capital Outlay Budget: \$62.0 M

Status: 54% Complete as of May 2013

Flatiron West, Inc. is the prime contractor constructing the Oakland Touchdown #2 contract that will complete the remaining portions of the Oakland Touchdown Approach structures from the existing toll plaza to the new span. The contractor is also responsible for the construction of the bike path and final landscaping of the area.

Status: The contractor completed the construction of the roadway deck structure and is currently working on the approach roadway backfill from the toll plaza to the deck. Duct bank conduit excavation and installation continues. Deck seismic joints were installed in May 2013. All other remaining civil work will be completed in support of the seismic safety opening, which is currently scheduled for Labor Day weekend 2013.



Aerial View of the Eastbound Oakland Touchdown #2 Construction Progress

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Existing East Span Bridge Demolition

I Existing SFOBB Dismantling Contracts

Approved Capital Outlay Budget: \$239.1 M

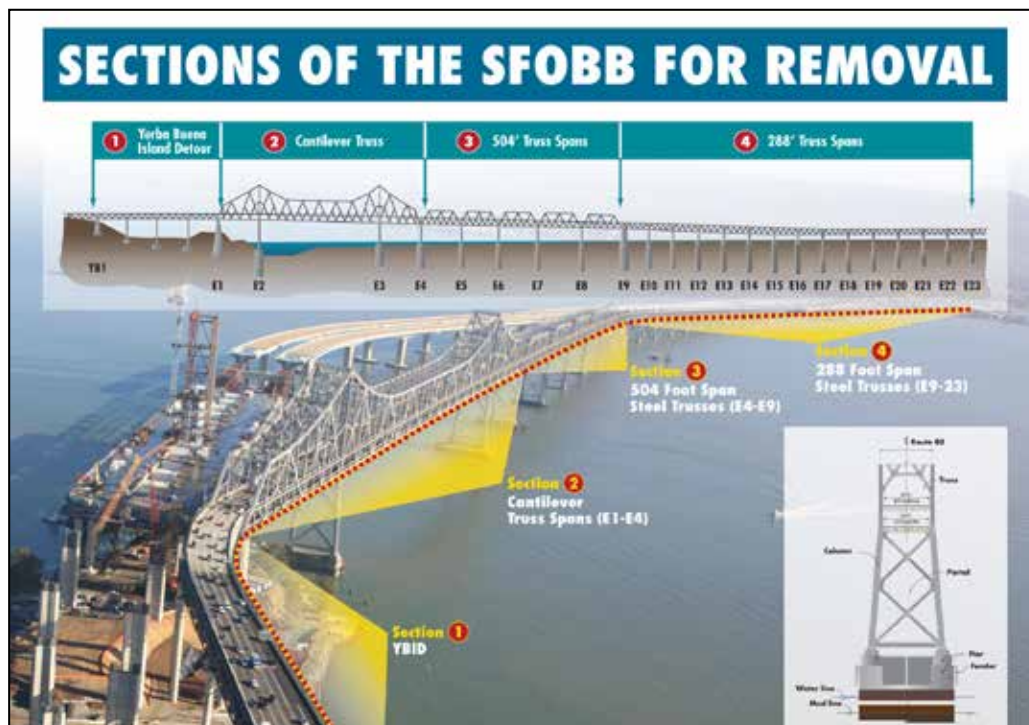
To expedite the opening of a new eastbound on ramp and the pedestrian/bicycle pathway from Yerba Buena Island to the SAS and to maximize contractor efficiencies, the TBPOC has decided to split the dismantling of the existing bridge into multiple contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge has been incorporated into the YBITS #2 contract. The dismantling of the remaining portions of the bridge will likely be performed under separate superstructure (above water) removal and marine foundation (below water) contracts. These contracts are still in design and may change in scope over time.

Status: The cantilever portion of the demolition contract was awarded to CEC and Silverado (JV) on November 28, 2012. Construction start-up activities began in March 2013, with actual dismantling to begin after seismic safety opening in September 2013. The contractor is in the process



Cantilever section of the Original eastbound Bridge Section
Included in the YBITS #2 Contract for Removal

of reviewing RFIs and preparing their submittals. Partnering meetings with Caltrans continue. The contractor is monitoring and installing bird deterrence measures on the cantilever bridge.





TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Other Contracts

A number of contracts needed to relocate utilities, clear areas of archeological artifacts and prepare areas for future work have already been completed. The last major contract will be the eventual demolition and removal of the existing bridge, which by that time will have served the Bay Area for nearly 80 years. Following is a status of some the other East Span contracts.

J Electrical Cable Relocation

Contractor: Manson Construction

Approved Capital Outlay Budget: \$9.6 M

Status: Completed January 2008

A submerged cable from Oakland that is close to where the new bridge will touch down supplies electrical power to Treasure Island. To avoid any possible damage to the cable during construction, two new replacement cables were run from Oakland to Treasure Island. The extra cable was funded by the Treasure Island Development Authority.



Archeological Investigations

Yerba Buena Island Substation

Contractor: West Bay Builders

Approved Capital Outlay Budget: \$11.3 M

Status: Completed May 2005

This contract relocated an electrical substation just east of the Yerba Buena Island Tunnel in preparation for the new East Span.



New YBI Electrical Substation



Stormwater Treatment Measures

Contractor: Diablo Construction, Inc.
 Approved Capital Outlay Budget: \$18.3 M
 Status: Completed December 2008

The Stormwater Treatment Measures contract implemented a number of best practices for the management and treatment of stormwater runoff. Focused on the areas around and approaching the toll plaza, the contract added new drainage and built new bio-retention swales and other related constructs.



Stormwater Retention Basin

East Span Interim Seismic Retrofit

Contractors: 1) California Engineering
 2) Balfour Beatty
 Approved Capital Outlay Budget: \$30.8 M
 Status: Completed October 2000

After the 1989 Loma Prieta Earthquake, and before the final retrofit strategy was determined for the East Span, Caltrans completed an interim retrofit of the existing bridge to prevent a catastrophic collapse of the bridge should a similar earthquake occur before the East Span was completely replaced. The interim retrofit was performed under two separate contracts that lengthened pier seats, added some structural members, and strengthened areas of the bridge so they would be more resilient during an earthquake.



Existing East Span Cantilever Section of the San Francisco-Oakland Bay Bridge to be Demolished after Seismic Safety Opening of the New Bridge

Pile Installation Demonstration

Contractor: Manson and Dutra, Joint Venture
 Approved Capital Outlay Budget: \$9.2 M
 Status: Completed December 2000

While large-diameter battered piles are common in offshore drilling, the new East Span is one of the first bridges to use them in its foundations. To minimize project risks and build industry knowledge, a pile installation demonstration project was initiated to prove the efficacy of the proposed technology and methodology. The demonstration was highly successful and helped result in zero contract change orders or claims for pile driving on the project.



Battered Pile Installation Demonstration

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Dumbarton Bridge Seismic Retrofit Project

Contractor: Shimmick Construction Company, Inc.

Approved Capital Outlay Budget: \$92.7 M

Status: 100% Complete as of May 2013

The current Dumbarton Bridge was opened to traffic in 1982 linking the cities of Newark in Alameda County and East Palo Alto in San Mateo County. The 1.6-mile long bridge has six lanes (three in each direction) and an eight-foot-wide bicycle/pedestrian pathway. The bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast-prestressed concrete delta girders and steel box girders supported on reinforced concrete piers. The current retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings.

Status: The main bridge structure between piers 16 through 31 is being raised approximately five inches in order for isolation bearings to be installed to separate the superstructure from the substructure during seismic events. In preparation, the bridge piers have been widened with reinforced concrete to accommodate the new bearings.

Along the reinforced concrete slab approaches, the bent caps have been extended and tied to new 48-inch diameter steel piles that have been installed to strengthen the bridge. Bent cap extensions along the east and west trestle approach are now complete.

Concrete has been placed and installation of jacking frames is complete at all of the 16 piers. The isolation bearing installation is complete at all piers. The bridge is now fully supported by the new bearings at all locations.

Work at the pumping plant is substantially complete. Fender rehabilitation work is ongoing at piers 23 and 24. Pier footing overlay concrete has been placed at piers 17 through 30. Removal of all 63 spans of the Ravenswood Pier has been completed.

The Dumbarton Bridge was closed to traffic for the second time in 2012 during the Labor Day weekend. A full bridge closure was necessary in order for crews to replace the existing expansion joint on the eastern side of the bridge at Pier 31 with a state-of-the-art seismic joint. Seismic retrofit of hinge 21 and 25 is complete.

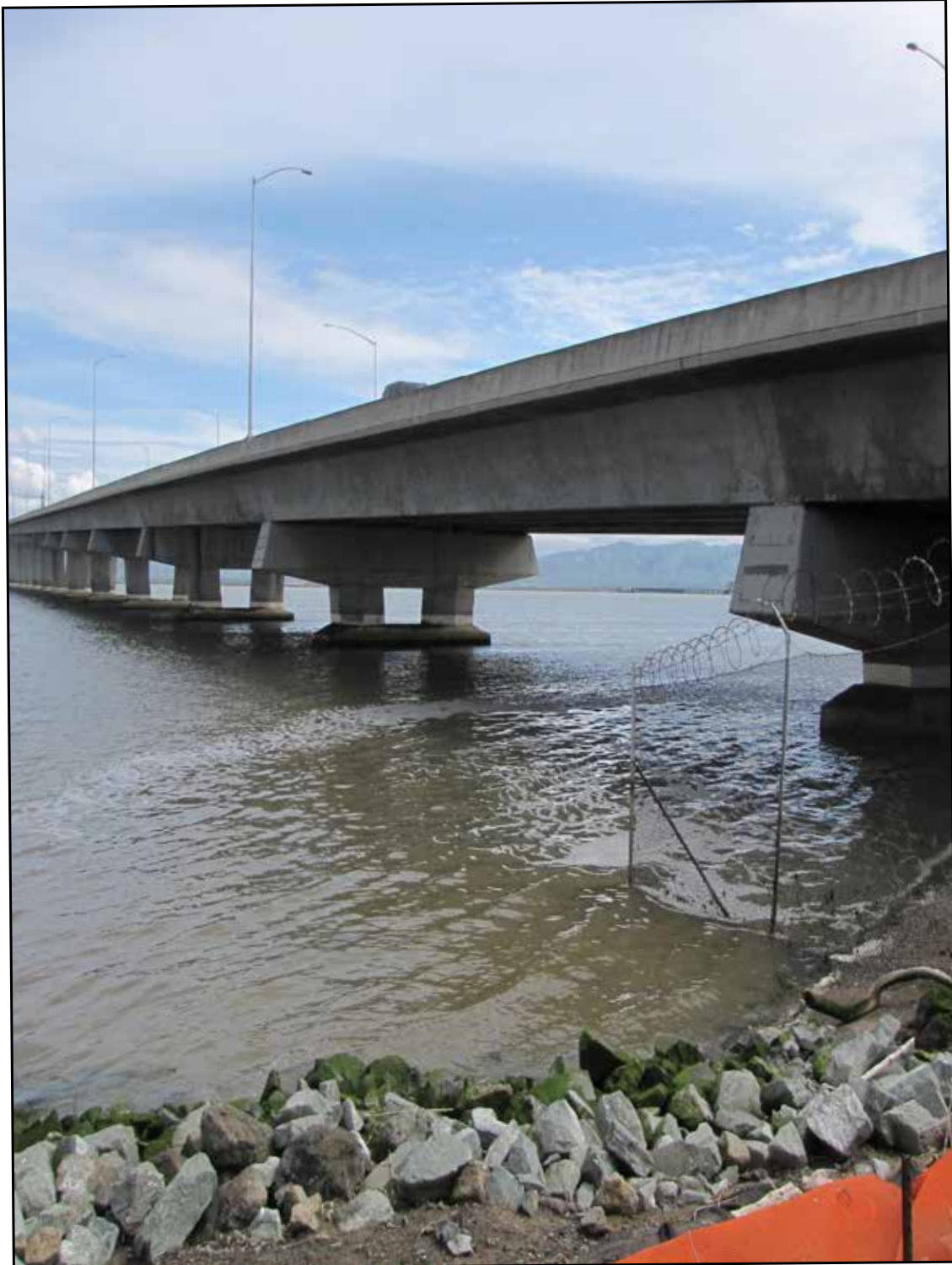
Installation of the Seismic Monitoring System and the rerouting of all electrical systems at pier 31 is complete. New curb, gutter and paving of the frontage roads along the bridge approach is complete.



Ravenswood Pier Pile Removal



Bollards around Pump Station



Dumbarton Bridge

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Other Completed Projects

In the 1990s, the State Legislature identified seven of the nine state-owned toll bridges for seismic retrofit. In addition to the San Francisco-Oakland Bay Bridge, these included the Benicia-Martinez, Carquinez, Richmond-San Rafael and San Mateo-Hayward bridges in the Bay Area, and the Vincent Thomas and Coronado bridges in Southern California. Other than the East Span of the Bay Bridge, the retrofits of all of the bridges have been completed as planned.

San Mateo-Hayward Bridge Seismic Retrofit Project

Project Status: Completed 2000

The San Mateo-Hayward Bridge seismic retrofit project focused on strengthening the high-rise portion of the span. The foundations of the bridge were significantly upgraded with additional piles.



High-Rise Section of San Mateo-Hayward Bridge

1958 Carquinez Bridge Seismic Retrofit Project

Project Status: Completed 2002

The eastbound 1958 Carquinez Bridge was retrofitted in 2002 with additional reinforcement of the cantilever thru-truss structure.

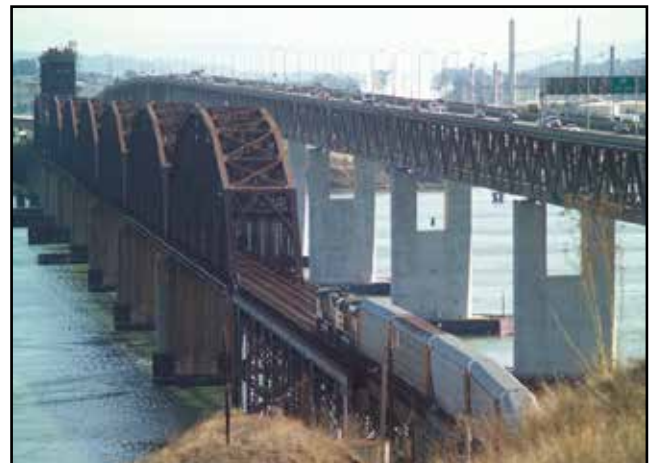


1958 Carquinez Bridge (foreground) with the 1927 Span (middle) under Demolition and the New Alfred Zampa Memorial Bridge (background)

1962 Benicia-Martinez Bridge Seismic Retrofit Project

Project Status: Completed 2003

The southbound 1962 Benicia-Martinez Bridge was retrofitted to "Lifeline" status with the strengthening of the foundations and columns and the addition of seismic bearings that allow the bridge to move during a major seismic event. The Lifeline status means the bridge is designed to sustain minor to moderate damage after a seismic event and to reopen quickly to emergency response traffic.



1962 Benicia-Martinez Bridge (right)

Richmond-San Rafael Bridge Seismic Retrofit Project

Project Status: Completed 2005

The Richmond-San Rafael Bridge was retrofitted to a “No Collapse” classification to avoid catastrophic failure during a major seismic event. The foundations, columns, and truss of the bridge were strengthened, and the entire low-rise approach viaduct from Marin County was replaced.



Richmond-San Rafael Bridge

Los Angeles-Vincent Thomas Bridge Seismic Retrofit Project

Project Status: Completed 2000

The Vincent Thomas Bridge is a 1,500-foot long suspension bridge crossing the Los Angeles Harbor in Los Angeles that links San Pedro with Terminal Island. The bridge was one of two state-owned toll bridges in Southern California (the other being the San Diego-Coronado Bridge). Opened in 1963, the bridge was seismically retrofitted as part of the TBSRP in 2000.



Los Angeles-Vincent Thomas Bridge

San Diego-Coronado Bridge Seismic Retrofit Project

Project Status: Completed 2002

The San Diego-Coronado Bridge crosses over San Diego Bay and links the cities of San Diego and Coronado. Opened in 1969, the 2.1-mile long bridge was seismically retrofitted as part of the TBSRP in 2002.

Antioch Bridge Seismic Retrofit Project

Project Status: Completed 2012

Serving the Delta region of the Bay Area, the Antioch Bridge takes State Route 160 traffic over the San Joaquin River, linking eastern Contra Costa County with Sacramento County. The current 1.8-mile-long steel plate girder bridge was opened in 1978 with one lane in each direction. The major retrofit measure for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents, and installing steel casings at all columns located at the Sherman Island approach slab bridge.



Antioch Bridge



Aerial View of Benicia Martinez Bridge Toll Plaza



REGIONAL MEASURE 1 TOLL BRIDGE PROGRAM

REGIONAL MEASURE 1 PROGRAM

Completed Projects

In November 1988, Bay Area voters approved Regional Measure 1 (RM 1), which authorized a standard auto toll of \$1 for all seven state-owned Bay Area toll bridges to be used to reduce congestion in the bridge corridor.

Richmond Parkway Construction Project

Project Status: **Completed 2001**

The final connections to the Richmond Parkway from Interstate 580 near the Richmond-San Rafael Bridge were completed in May 2001.

San Mateo-Hayward Bridge Widening Project

Project Status: **Completed 2003**

This project expanded the low-rise concrete trestle section of the San Mateo-Hayward Bridge to allow for three lanes in each direction to match the existing configuration of the high-rise steel section of the bridge.

New Alfred Zampa Memorial (Carquinez) Bridge Project

Project Status: **Completed 2003**

The new western span of the Carquinez Bridge, which replaced the original 1927 span, is a twin-towered suspension bridge with three mixed-flow lanes, a new carpool lane, shoulders and a bicycle/pedestrian pathway.

Bayfront Expressway (State Route 84) Widening Project

Project Status: **Completed 2004**

This project expanded and improved the roadway from the Dumbarton Bridge touchdown to the US 101/ Marsh Road interchange by adding additional lanes and turn pockets and improving bicycle/pedestrian access in the area.

Richmond-San Rafael Bridge Rehabilitation Projects

Project Status: **Completed 2006**

Three major rehabilitation projects for the Richmond-San Rafael Bridge were completed. In 2001, the final connections to the Richmond Parkway were completed. In 2005, seismic retrofit, trestle and fender system replacement work was completed. In 2006, the bridge was resurfaced along with deck joint repairs.



Widening of the San Mateo-Hayward Bridge Trestle on left



New Alfred Zampa Memorial (Carquinez) Bridge Soon after Opening to Traffic, with Crockett Interchange Still under Construction



New Richmond-San Rafael Bridge West Approach Trestle under Construction

Benicia-Martinez Bridge Project

Project Status: **Completed 2007**

The new Congressman George Miller Bridge opened to traffic in August 2007, taking its place alongside the existing 1962 Benicia-Martinez Bridge, which is named for Congressman Miller's father, the late George Miller, Jr. The new bridge carries five lanes of northbound Interstate 680 traffic, while the existing bridge is being upgraded to carry four lanes of southbound traffic and a new bicycle/pedestrian pathway.



The New Congressman George Miller Bridge (New Benicia-Martinez Bridge)

Benicia-Martinez Bridge Rehabilitation Project

Project Status: **Completed 2009**

A two-year project to rehabilitate and reconfigure the original Benicia-Martinez Bridge began shortly after the opening of the new Congressman George Miller Bridge. The existing 1.2-mile roadway surface on the steel deck truss bridge was modified to carry four lanes of southbound traffic (one more than before) - with shoulders on both sides - plus a bicycle/pedestrian path on the west side of the span that connects to Park Road in Benicia and to Marina Vista Boulevard in Martinez. Reconstruction of the east side of the bridge and approaches was completed in August 2008. Reconstruction of the west side of the bridge and its approaches and construction of the bicycle/pedestrian pathway were completed in August 2009.



Benicia-Martinez Bridge Bicycle/Pedestrian Path

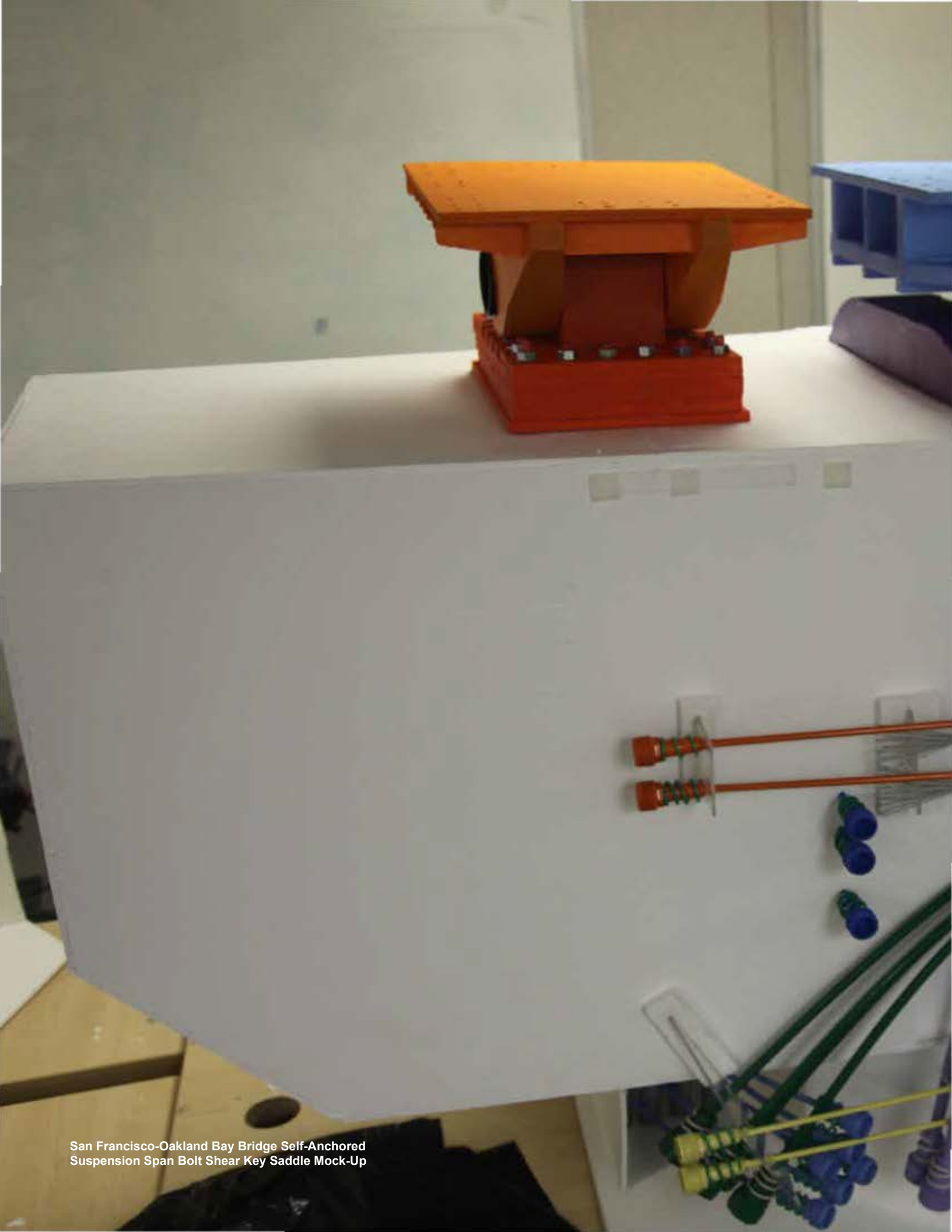
Interstate 880/State Route 92

Project Status: **Completed 2011**

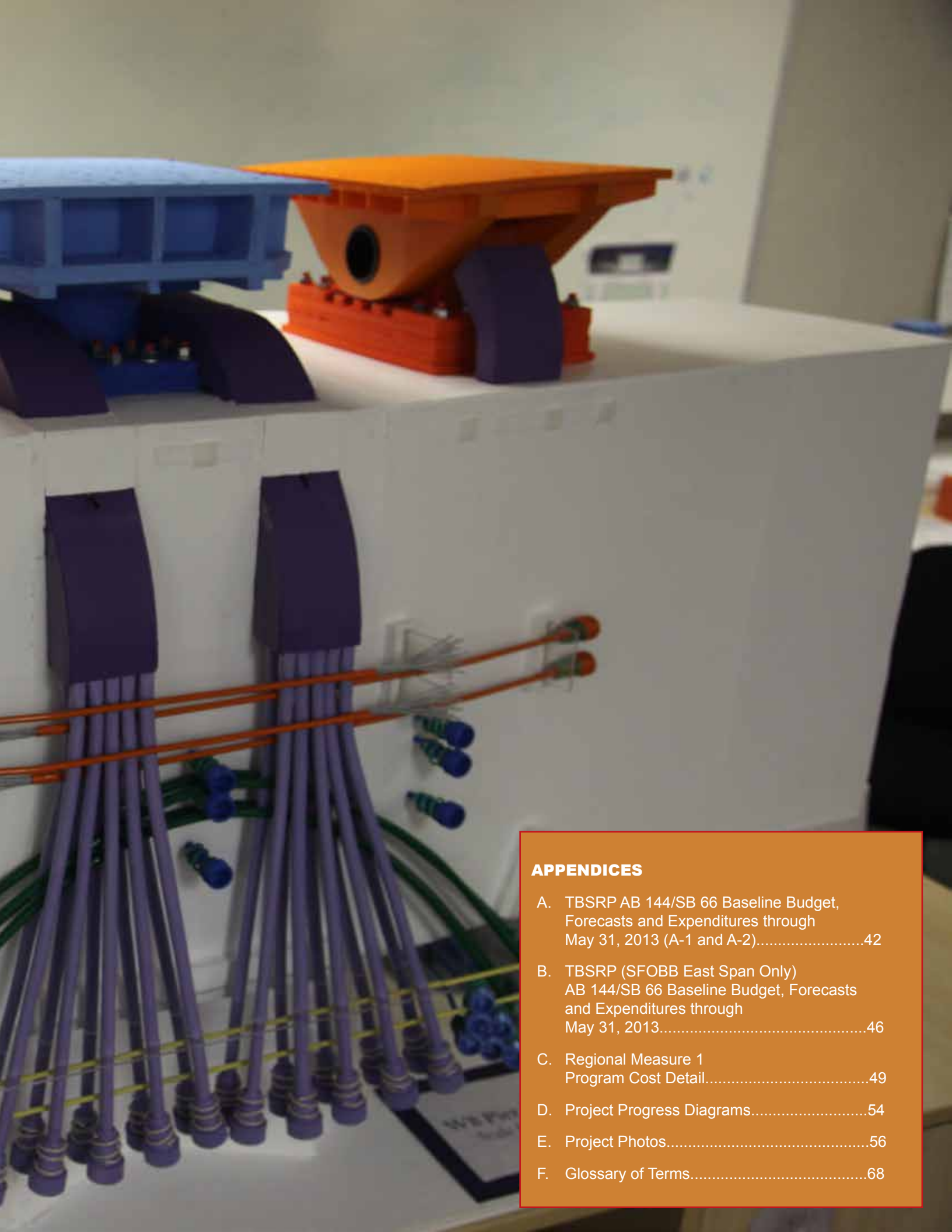
This corridor was consistently one of the Bay Area's most congested during the evening commute. This was due in part to the lane merging and weaving that was required by the then-existing cloverleaf interchange. The new interchange features direct freeway-to-freeway connector ramps that now increase traffic capacity and improve overall safety and traffic operations in the area. With the new direct-connector ramps, drivers coming off of the San Mateo-Hayward Bridge can access Interstate 880 without having to compete with traffic headed onto east Route 92 from south Interstate 880.



Aerial View of Completed 880/92 Interchange Project



San Francisco-Oakland Bay Bridge Self-Anchored
Suspension Span Bolt Shear Key Saddle Mock-Up



APPENDICES

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Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through May 31, 2013 (\$ Millions)

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (05/2013) e = c + d	Cost to Date (05/2013) f	Cost Forecast (05/2013) g	At- Completion Variance h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.3	262.3	1,221.6	1,140.6	1,279.4	57.8
Capital Outlay Construction	4,492.2	571.5	5,063.7	4,393.1	5,102.7	39.0
Other Budgeted Capital	35.1	(32.8)	2.3	0.7	7.7	5.4
Total	5,486.6	801.0	6,287.6	5,534.4	6,389.8	102.2
SFOBB West Approach Replacement						
Capital Outlay Support	120.0	(1.0)	119.0	119.3	119.3	0.3
Capital Outlay Construction	309.0	41.7	350.7	332.0	338.1	(12.6)
Total	429.0	40.7	469.7	451.3	457.4	(12.3)
SFOBB West Span Retrofit						
Capital Outlay Support	75.0	(0.2)	74.8	74.9	74.8	-
Capital Outlay Construction	232.9	(5.5)	227.4	227.4	227.4	-
Total	307.9	(5.7)	302.2	302.3	302.2	-
Richmond-San Rafael Bridge Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.8	127.0	-
Capital Outlay Construction	780.0	(90.5)	689.5	667.5	689.5	-
Total	914.0	(97.5)	816.5	794.3	816.5	-
Benicia-Martinez Bridge Retrofit						
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	0.1	28.8	28.8	28.8	-
Capital Outlay Construction	85.5	(0.1)	85.4	85.4	85.4	-
Total	114.2	-	114.2	114.2	114.2	-
San Mateo-Hayward Retrofit						
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	(0.1)	135.3	135.3	135.3	-
Total	163.5	(0.1)	163.4	163.4	163.4	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	(0.1)	42.0	42.0	42.0	-
Total	58.5	(0.1)	58.4	58.4	58.4	-
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	(0.3)	33.2	33.2	33.2	-
Capital Outlay Construction	70.0	(0.6)	69.4	69.4	69.4	-
Total	103.5	(0.9)	102.6	102.6	102.6	-

Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through May 31, 2013 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2013)	Cost to Date (05/2013)	Cost Forecast (05/2013)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Antioch Bridge						
Capital Outlay Support	-	31.0	31.0	17.3	23.8	(7.2)
Capital Outlay Support by BATA				6.2		
Capital Outlay Construction	-	51.0	51.0	47.0	50.3	(0.7)
Total	-	82.0	82.0	70.5	74.1	(7.9)
Dumbarton Bridge						
Capital Outlay Support	-	56.0	56.0	37.6	45.4	(10.6)
Capital Outlay Support by BATA				6.0		
Capital Outlay Construction	-	92.7	92.7	63.1	69.5	(23.2)
Total	-	148.7	148.7	106.7	114.9	(33.8)
Subtotal Capital Outlay Support	1,433.1	340.9	1,774.0	1,673.3	1,814.3	40.3
Subtotal Capital Outlay	6,286.8	660.0	6,946.8	6,201.9	6,949.3	2.5
Subtotal Other Budgeted Capital	35.1	(32.8)	2.3	0.7	7.7	5.4
Miscellaneous Program Costs	30.0	-	30.0	25.5	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	968.1	8,753.1	7,901.4	8,801.3	48.2
Net Programmatic Risks*	-	-	-	-	55.1	55.1
Program Contingency	900.0	(571.1)	328.9	-	225.6	(103.3)
Total Toll Bridge Seismic Retrofit Program ¹	8,685.0	397.0	9,082.0	7,901.4	9,082.0	-

¹ Figures may not sum up to totals due to rounding effects.

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through May 31, 2013 (\$ Millions)

Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and encumbrances as of 05/2013 see Note (1)	Estimated costs not yet spent or encumbered as of 05/2013	Total Forecast as of 05/2013
a	b	c	d	e	f = d + e
Other Completed Projects					
Capital Outlay Support	144.9	144.6	144.6	-	144.6
Capital Outlay	472.6	471.9	472.3	(0.5)	471.8
Total	617.5	616.5	616.9	(0.5)	616.4
Richmond-San Rafael					
Capital Outlay Support	134.0	127.0	126.8	0.2	127.0
Capital Outlay	698.0	689.5	667.5	22.0	689.5
Project Reserves	82.0	-	-	-	-
Total	914.0	816.5	794.3	22.2	816.5
West Span Retrofit					
Capital Outlay Support	75.0	74.8	74.9	(0.1)	74.8
Capital Outlay	232.9	227.4	227.4	-	227.4
Total	307.9	302.2	302.3	(0.1)	302.2
West Approach					
Capital Outlay Support	120.0	119.0	119.3	-	119.3
Capital Outlay	309.0	350.7	332.6	5.5	338.1
Total	429.0	469.7	451.9	5.5	457.4
SFOBB East Span - Skyway					
Capital Outlay Support	197.0	181.2	181.2	-	181.2
Capital Outlay	1,293.0	1,237.2	1,237.3	(0.1)	1,237.2
Total	1,490.0	1,418.4	1,418.5	(0.1)	1,418.4
SFOBB East Span - SAS - Superstructure					
Capital Outlay Support	214.6	419.0	436.8	37.8	474.6
Capital Outlay	1,753.7	2,046.8	1,963.5	95.8	2,059.3
Total	1,968.3	2,465.8	2,400.3	133.6	2,533.9
SFOBB East Span - SAS - Foundations					
Capital Outlay Support	62.5	37.6	37.6	-	37.6
Capital Outlay	339.9	301.3	301.3	3.8	305.1
Total	402.4	338.9	338.9	3.8	342.7
Small YBI Projects					
Capital Outlay Support	10.6	10.2	10.2	0.4	10.6
Capital Outlay	15.6	15.2	15.2	0.5	15.7
Total	26.2	25.4	25.4	0.9	26.3
YBI Detour					
Capital Outlay Support	29.5	87.7	87.9	(0.2)	87.7
Capital Outlay	131.9	466.1	466.2	7.1	473.3
Total	161.4	553.8	554.1	6.9	561.0
YBI- Transition Structures					
Capital Outlay Support	78.7	106.4	99.7	14.3	114.0
Capital Outlay	299.4	295.4	332.9	(24.9)	308.0
Total	378.1	401.8	432.6	(10.6)	422.0

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through May 31, 2013 (\$ Millions) Cont.

Contract	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and encumbrances as of 05/2013 see Note (1)	Estimated costs not yet spent or encumbered as of 05/2013	Total Forecast as of 05/2013
a	b	c	d	e	f = d + e
Oakland Touchdown					
Capital Outlay Support	74.4	112.9	106.2	16.2	122.4
Capital Outlay	283.8	323.7	271.9	51.5	323.4
Total	358.2	436.6	378.1	67.7	445.8
East Span Other Small Projects					
Capital Outlay Support	212.3	206.6	197.9	8.7	206.6
Capital Outlay	170.8	141.3	117.1	37.6	154.7
Total	383.1	347.9	315.0	46.3	361.3
Existing Bridge Demolition					
Capital Outlay Support	79.7	59.9	4.6	40.1	44.7
Capital Outlay	239.2	239.1	-	233.7	233.7
Total	318.9	299.0	4.6	273.8	278.4
Antioch Bridge					
Capital Outlay Support	-	31.0	17.3	0.3	17.6
Capital Outlay Support by BATA			6.2	-	6.2
Capital Outlay	-	51.0	47.0	3.3	50.3
Total	-	82.0	70.5	3.6	74.1
Dumbarton Bridge					
Capital Outlay Support	-	56.0	37.7	1.7	39.4
Capital Outlay Support by BATA			6.0	-	6.0
Capital Outlay	-	92.7	68.4	1.1	69.5
Total	-	148.7	112.1	2.8	114.9
Miscellaneous Program Costs	30.0	30.0	25.5	4.5	30.0
Total Capital Outlay Support	1,463.2	1,803.9	1,720.4	123.9	1,844.3
Total Capital Outlay	6,321.8	6,949.2	6,520.6	436.4	6,957.0
Program Total ¹	7,785.0	8,753.1	8,241.0	560.3	8,801.3

(1). Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.

(2). BSA provided a distribution of program contingency in December 2004 based in Bechtel Infrastructure Corporation input.

This Column is subject to revision upon completion of Department's risk assessment update.

(3) Total Capital Outlay Support includes program indirect costs.

¹ Figures may not sum up to totals due to rounding effects.

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through May 31, 2013 (\$ Millions)

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (05/2013) e = c + d	Cost to Date (05/2013) f	Cost Forecast (05/2013) g	At- Completion Variance h = g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project						
East Span - SAS Superstructure						
Capital Outlay Support	214.6	204.4	419.0	424.2	474.6	55.6
Capital Outlay Construction	1,753.7	293.1	2,046.8	1,814.4	2,059.3	12.5
Total	1,968.3	497.5	2,465.8	2,238.6	2,533.9	68.1
SAS W2 Foundations						
Capital Outlay Support	10.0	(0.8)	9.2	9.2	9.2	-
Capital Outlay Construction	26.4	0.1	26.5	26.5	26.5	-
Total	36.4	(0.7)	35.7	35.7	35.7	-
YBI South/South Detour						
Capital Outlay Support	29.4	58.3	87.7	87.9	87.7	-
Capital Outlay Construction	131.9	334.2	466.1	466.1	473.3	7.2
Total	161.3	392.5	553.8	554.0	561.0	7.2
East Span - Skyway						
Capital Outlay Support	197.0	(15.8)	181.2	181.2	181.2	-
Capital Outlay Construction	1,293.0	(55.8)	1,237.2	1,237.3	1,237.2	-
Total	1,490.0	(71.6)	1,418.4	1,418.5	1,418.4	-
East Span - SAS E2/T1 Foundations						
Capital Outlay Support	52.5	(24.1)	28.4	28.4	28.4	-
Capital Outlay Construction	313.5	(38.7)	274.8	274.8	278.6	3.8
Total	366.0	(62.8)	303.2	303.2	307.0	3.8
YBI Transition Structures (see notes below)						
Capital Outlay Support	78.7	27.7	106.4	94.5	114.0	7.6
Capital Outlay Construction	299.3	(3.9)	295.4	183.4	308.0	12.6
Total	378.0	23.8	401.8	277.9	422.0	20.2
* YBI- Transition Structures						
Capital Outlay Support			16.4	16.4	16.4	-
Capital Outlay Construction			-	-	-	-
Total			16.4	16.4	16.4	-
* YBI- Transition Structures Contract No. 1						
Capital Outlay Support			57.0	60.1	63.6	6.6
Capital Outlay Construction			199.7	174.6	213.7	14.0
Total			256.7	234.7	277.3	20.6
* YBI- Transition Structures Contract No. 2						
Capital Outlay Support			32.0	17.9	33.0	1.0
Capital Outlay Construction			92.4	8.9	91.0	(1.4)
Total			124.4	26.8	124.0	(0.4)
* YBI- Transition Structures Contract No. 3 Landscape						
Capital Outlay Support			1.0	-	1.0	-
Capital Outlay Construction			3.3	-	3.3	-
Total			4.3	-	4.3	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through May 31, 2013 (\$ Millions) Cont.

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (05/2013) e = c + d	Cost to Date (05/2013) f	Cost Forecast (05/2013) g	At- Completion Variance h = g - e
Oakland Touchdown (see notes below)						
Capital Outlay Support	74.4	38.5	112.9	102.5	122.4	9.5
Capital Outlay Construction	283.8	39.9	323.7	258.5	323.4	(0.3)
Total	358.2	78.4	436.6	361.0	445.8	9.2
* OTD Prior-to-Split Costs						
Capital Outlay Support			21.7	20.0	21.7	-
Capital Outlay Construction			-	-	-	-
Total			21.7	20.0	21.7	-
* OTD Submarine Cable(1)						
Capital Outlay Support			0.9	0.9	0.9	-
Capital Outlay Construction			5.7	5.7	9.6	3.9
Total			6.6	6.6	10.5	3.9
* OTD No. 1 (Westbound)						
Capital Outlay Support			51.3	51.2	51.3	-
Capital Outlay Construction			205.0	204.8	203.3	(1.7)
Total			256.3	256.0	254.6	(1.7)
* OTD No. 2 (Eastbound)						
Capital Outlay Support			22.5	22.7	39.8	17.3
Capital Outlay Construction			62.0	20.2	66.1	4.1
Total			84.5	42.9	105.9	21.4
* OTD Touchdown 2 Detour(2)						
Capital Outlay Support			15.0	7.0	7.2	(7.8)
Capital Outlay Construction			51.0	27.7	44.4	(6.6)
Total			66.0	34.7	51.6	(14.4)
* OTD Electrical Systems						
Capital Outlay Support			1.5	0.8	1.5	-
Capital Outlay Construction			-	-	-	-
Total			1.5	0.8	1.5	-
Existing Bridge Demolition						
Capital Outlay Support	79.7	(19.8)	59.9	4.6	44.7	(15.2)
Capital Outlay Construction	239.2	(0.1)	239.1	-	233.7	(5.4)
Total	318.9	(19.9)	299.0	4.6	278.4	(20.6)
* Bridge Demolition Prior-to-Split Cost						
Capital Outlay Support			-	3.9	-	
Capital Outlay Construction			-	-	-	
Total			-	3.9	-	
* Cantilever Section						
Capital Outlay Support			-	0.1	16.8	
Capital Outlay Construction			-	-	60.3	
Total			-	0.1	77.1	
* 504/288 Sections						
Capital Outlay Support			-	0.5	13.9	
Capital Outlay Construction			-	-	88.4	
Total			-	0.5	102.3	
*Marine foundations						
Capital Outlay Support			-	0.1	14.0	
Capital Outlay Construction			-	-	85.0	
Total			-	0.1	99.0	

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through May 31, 2013 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2013) e = c + d	Cost to Date (05/2013)	Cost Forecast (05/2013)	At-Completion Variance h = g - e
a	c	d	e = c + d	f	g	h = g - e
YBI/SAS Archeology						
Capital Outlay Support	1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction	1.1	-	1.1	1.1	1.1	-
Total	2.2	-	2.2	2.2	2.2	-
YBI - USCG Road Relocation						
Capital Outlay Support	3.0	(0.3)	2.7	2.7	3.0	0.3
Capital Outlay Construction	3.0	(0.2)	2.8	2.8	3.0	0.2
Total	6.0	(0.5)	5.5	5.5	6.0	0.5
YBI - Substation and Viaduct						
Capital Outlay Support	6.5	(0.1)	6.4	6.4	6.5	0.1
Capital Outlay Construction	11.6	(0.3)	11.3	11.3	11.6	0.3
Total	18.1	(0.4)	17.7	17.7	18.1	0.4
Oakland Geofill						
Capital Outlay Support	2.5	0.1	2.6	2.5	2.5	(0.1)
Capital Outlay Construction	8.2	-	8.2	8.2	8.2	-
Total	10.7	0.1	10.8	10.7	10.7	(0.1)
Pile Installation Demonstration Project						
Capital Outlay Support	1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction	9.3	(0.1)	9.2	9.3	9.3	-
Total	11.1	(0.1)	11.0	11.1	11.1	-
Stormwater Treatment Measures						
Capital Outlay Support	6.0	2.2	8.2	8.2	8.2	-
Capital Outlay Construction	15.0	3.3	18.3	16.9	18.3	-
Total	21.0	5.5	26.5	25.1	26.5	-
Right-of-Way and Environmental Mitigation						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay & Right-of-Way	72.4	-	72.4	51.7	80.4	8.0
Total	72.4	-	72.4	51.7	80.4	8.0
Sunk Cost - Existing East Span Retrofit						
Capital Outlay Support	39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction	30.8	-	30.8	30.8	30.8	-
Total	70.3	-	70.3	70.3	70.3	-
Other Capital Outlay Support						
Environmental Phase	97.7	0.1	97.8	97.8	97.7	(0.1)
Pre-Split Project Expenditures	44.9	-	44.9	44.9	44.9	-
Non-Project Specific Costs	20.0	(8.0)	12.0	3.2	12.0	-
Total	162.6	(7.9)	154.7	145.9	154.6	(0.1)
Subtotal Capital Outlay Support	959.3	262.3	1,221.6	1,140.6	1,279.4	57.8
Subtotal Capital Outlay Construction	4,492.2	571.5	5,063.7	4,393.1	5,102.7	39.0
Other Budgeted Capital	35.1	(32.8)	2.3	0.7	7.7	5.4
						-
Total SFOBB East Span Replacement Project	5,486.6	801.0	6,287.6	5,534.4	6,389.8	102.2

¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2013)	Cost to Date (05/2013)	Cost Forecast (05/2013)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project						
New Bridge						
Capital Outlay Support						
BATA Funding	84.9	7.2	92.1	92.0	92.1	-
Non-BATA Funding	-	0.1	0.1	0.1	0.1	-
Subtotal	84.9	7.3	92.2	92.1	92.2	-
Capital Outlay Construction			-			-
BATA Funding	661.9	94.6	756.5	753.7	756.5	-
Non-BATA Funding	10.1	-	10.1	10.1	10.1	-
Subtotal	672.0	94.6	766.6	763.8	766.6	-
Total	756.9	101.9	858.8	855.9	858.8	-
I-680/I-780 Interchange Reconstruction						
Capital Outlay Support						
BATA Funding	24.9	5.2	30.1	30.1	30.1	-
Non-BATA Funding	1.4	5.2	6.6	6.3	6.6	-
Subtotal	26.3	10.4	36.7	36.4	36.7	-
Capital Outlay Construction						
BATA Funding	54.7	26.9	81.6	77.1	81.6	-
Non-BATA Funding	21.6	-	21.6	21.7	21.7	0.1
Subtotal	76.3	26.9	103.2	98.8	103.3	0.1
Total	102.6	37.3	139.9	135.2	140.0	0.1
I-680/Marina Vista Interchange Reconstruction						
Capital Outlay Support	18.3	1.9	20.2	20.2	20.2	-
Capital Outlay Construction	51.5	4.9	56.4	56.1	56.4	-
Total	69.8	6.8	76.6	76.3	76.6	-
New Toll Plaza and Administration Building						
Capital Outlay Support	11.9	3.8	15.7	15.7	15.7	-
Capital Outlay Construction	24.3	2.0	26.3	25.1	26.3	-
Total	36.2	5.8	42.0	40.8	42.0	-
Existing Bridge & Interchange Modifications						
Capital Outlay Support						
BATA Funding	4.3	13.7	18.0	18.0	18.0	-
Non-BATA Funding	-	0.9	0.9	0.8	0.9	-
Subtotal	4.3	14.6	18.9	18.8	18.9	-
Capital Outlay Construction						
BATA Funding	17.2	32.8	50.0	37.2	50.0	-
Non-BATA Funding	-	9.5	9.5	-	9.5	-
Subtotal	17.2	42.3	59.5	37.2	59.5	-
Total	21.5	56.9	78.4	56.0	78.4	-
Other Contracts						
Capital Outlay Support	11.4	(0.9)	10.5	9.7	10.5	-
Capital Outlay Construction	20.3	3.3	23.6	18.6	23.6	-
Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Total	52.1	2.3	54.4	45.3	54.4	-

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2013)	Cost to Date (05/2013)	Cost Forecast (05/2013)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project continued...						
Subtotal BATA Capital Outlay Support	155.7	30.9	186.6	185.7	186.6	-
Subtotal BATA Capital Outlay Construction	97.5	16.4	113.9	107.0	113.9	-
Subtotal Capital Outlay Right-of-Way	158.1	22.0	180.1	165.9	180.2	0.1
Subtotal Non-BATA Capital Outlay Support	52.1	2.3	54.4	45.3	54.4	-
Subtotal Non-BATA Capital Outlay Construction	115.5	32.3	147.8	147.3	147.8	-
Project Reserves	765.5	163.8	929.3	899.8	929.4	0.1
Total New Benicia-Martinez Bridge Project						
Notes:	Includes EAs 00601_,00603_,00605_,00606_,00608_,00609_,0060A_,0060C_,0060E_,0060F_,0060G_,0060H_, and all Project Right-of-Way					-
Carquinez Bridge Replacement Project						
New Bridge						
Capital Outlay Support	60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction	253.3	2.7	256.0	255.9	256.0	-
Total	313.8	2.4	316.2	316.1	316.2	-
Crockett Interchange Reconstruction						
Capital Outlay Support	32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction	73.9	(1.9)	72.0	71.9	72.0	-
Total	105.9	(2.0)	103.9	103.8	103.9	-
Existing 1927 Bridge Demolition						
Capital Outlay Support	16.1	(0.3)	15.8	15.8	15.8	-
Capital Outlay Construction	35.2	-	35.2	35.1	35.2	-
Total	51.3	(0.3)	51.0	50.9	51.0	-
Other Contracts						
Capital Outlay Support	15.8	0.9	16.7	16.5	16.7	-
Capital Outlay Construction	18.8	(1.2)	17.6	16.5	17.6	-
Capital Outlay Right-of-Way	10.5	(0.1)	10.4	9.9	10.4	-
Total	45.1	(0.4)	44.7	42.9	44.7	-
Subtotal BATA Capital Outlay Support						
Subtotal BATA Capital Outlay Construction	124.4	0.2	124.6	124.4	124.6	-
Subtotal Capital Outlay Right-of-Way	381.2	(0.4)	380.8	379.4	380.8	-
Project Reserves	10.5	(0.1)	10.4	9.9	10.4	-
	12.1	(9.7)	2.4	-	2.4	-
Total Carquinez Bridge Replacement Project ¹						
Notes	Other Contracts include EAs 01301_,01302_,01303_,01304_,01305_,01306_,01307_,01308_,01309_,0130A_,0130C_,0130D_,0130F_,0130G_,0130H_,0130J_,00453_,00493_,04700_,00607_,2A270_,and 29920_ and all Project Right-of-Way					-

¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2013)	Cost to Date (05/2013)	Cost Forecast (05/2013)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation						
Capital Outlay Support						
BATA Funding	2.2	(0.8)	1.4	1.4	1.4	-
Non-BATA Funding	8.6	1.8	10.4	10.4	10.4	-
Subtotal	10.8	1.0	11.8	11.8	11.8	-
Capital Outlay Construction						
BATA Funding	40.2	(6.8)	33.4	33.3	33.4	-
Non-BATA Funding	51.1	-	51.1	51.1	51.1	-
Subtotal	91.3	(6.8)	84.5	84.4	84.5	-
Project Reserves	-	0.8	0.8	-	0.8	-
Total	102.1	(5.0)	97.1	96.2	97.1	-
Richmond-San Rafael Bridge Deck Overlay Rehabilitation						
Capital Outlay Support						
BATA Funding	4.0	(0.7)	3.3	3.3	3.3	-
Non-BATA Funding	4.0	(4.0)	-	-	-	-
Subtotal	8.0	(4.7)	3.3	3.3	3.3	-
Capital Outlay Construction	16.9	(0.6)	16.3	16.4	16.3	-
Project Reserves	0.1	0.3	0.4	-	0.4	-
Total	25.0	(5.0)	20.0	19.7	20.0	-
Richmond Parkway Project (RM 1 Share Only)						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	5.9	-	5.9	4.3	5.9	-
Total	5.9	-	5.9	4.3	5.9	-
San Mateo-Hayward Bridge Widening						
Capital Outlay Support	34.6	(0.5)	34.1	34.1	34.1	-
Capital Outlay Construction	180.2	(6.1)	174.1	174.1	174.1	-
Capital Outlay Right-of-Way	1.5	(0.9)	0.6	0.6	0.6	-
Project Reserves	1.5	(0.5)	1.0	-	1.0	-
Total	217.8	(8.0)	209.8	208.8	209.8	-
I-880/SR-92 Interchange Reconstruction						
Capital Outlay Support	28.8	35.8	64.6	62.2	64.6	-
Capital Outlay Construction						
BATA Funding	85.2	68.4	153.6	150.2	153.6	-
Non-BATA Funding	9.6	-	9.6	-	9.6	-
Subtotal	94.8	68.4	163.2	150.2	163.2	-
Capital Outlay Right-of-Way	9.9	7.3	17.2	15.4	17.2	-
Project Reserves	0.3	(0.3)	-	-	-	-
Total	133.8	111.2	245.0	227.8	245.0	-
Bayfront Expressway Widening						
Capital Outlay Support	8.6	(0.2)	8.4	8.4	8.4	-
Capital Outlay Construction	26.5	(1.5)	25.0	24.9	25.0	-
Capital Outlay Right-of-Way	0.2	-	0.2	0.2	0.2	-
Project Reserves	0.8	(0.3)	0.5	-	0.5	-
Total	36.1	(2.0)	34.1	33.5	34.1	-

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

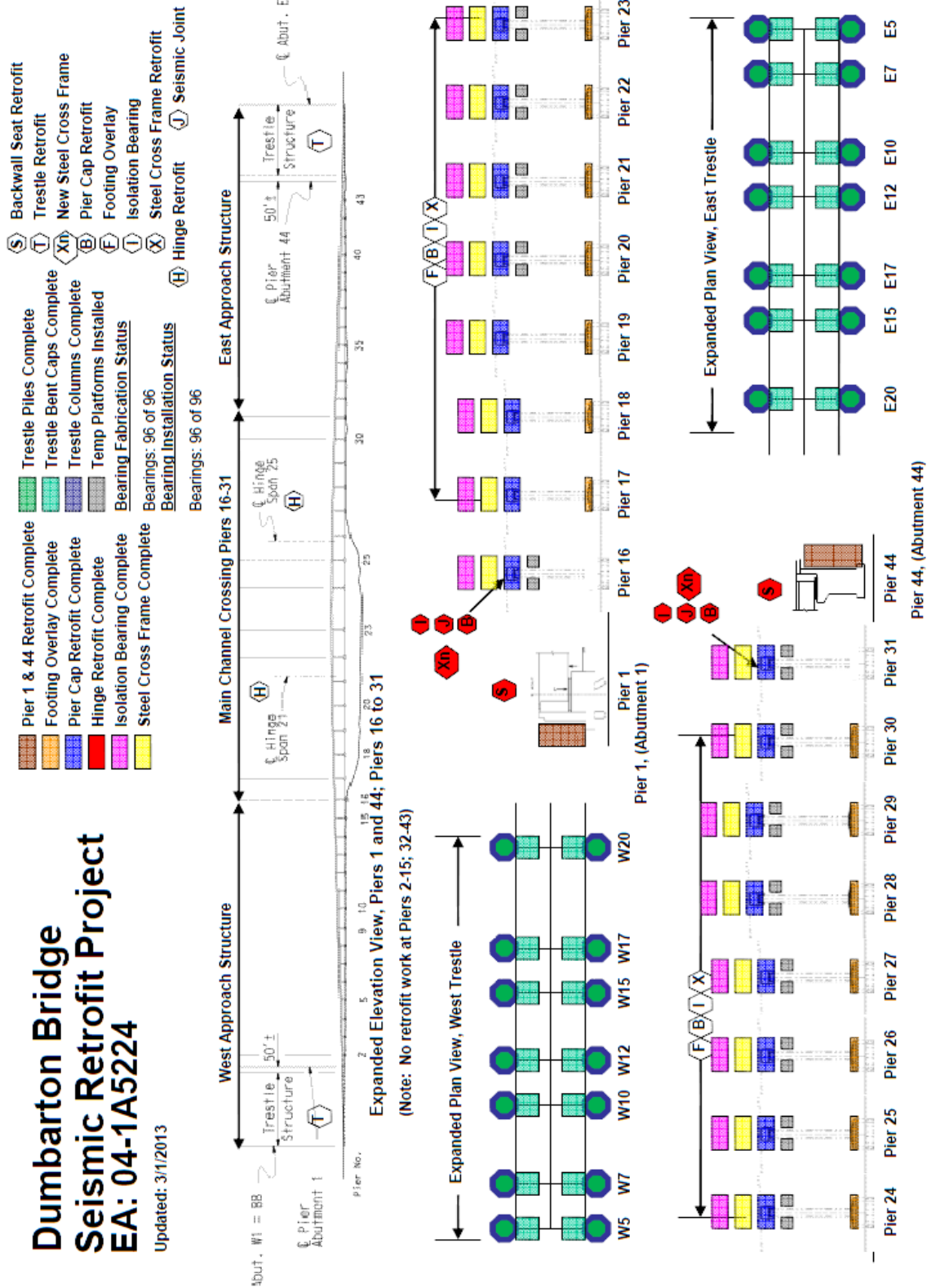
Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2013)	Cost to Date (05/2013)	Cost Forecast (05/2013)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
US 101/University Avenue Interchange Modification						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	3.8	-	3.8	3.7	3.8	-
Total	3.8	-	3.8	3.7	3.8	-
Subtotal BATA Capital Outlay Support	358.3	64.7	423.0	419.5	423.0	-
Subtotal BATA Capital Outlay Construction	837.4	69.4	906.8	893.3	906.8	-
Subtotal Capital Outlay Right-of-Way	180.2	28.3	208.5	192.0	208.6	0.1
Subtotal Non-BATA Capital Outlay Support	64.7	0.1	64.8	55.7	64.8	-
Subtotal Non-BATA Capital Outlay Construction	176.2	32.3	208.5	198.4	208.5	-
Project Reserves	780.3	154.1	934.4	899.8	934.5	0.1
Total RM1 Program	2,397.1	348.9	2,746.0	2,658.7	2,746.2	-
Notes:	1 Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRP Expenses for EA 0438U_ and 04157_					
	2 San Mateo-Hayward Bridge Widening includes EAs 00305_,04501_,04503_,04504_,04504_,04505_,04506_,04507_,04508_,04509_,27740_,27790_,04860_					



Appendix D: Progress Diagrams

Dumbarton Bridge Seismic Retrofit Project EA: 04-1A5224

Updated: 3/1/2013



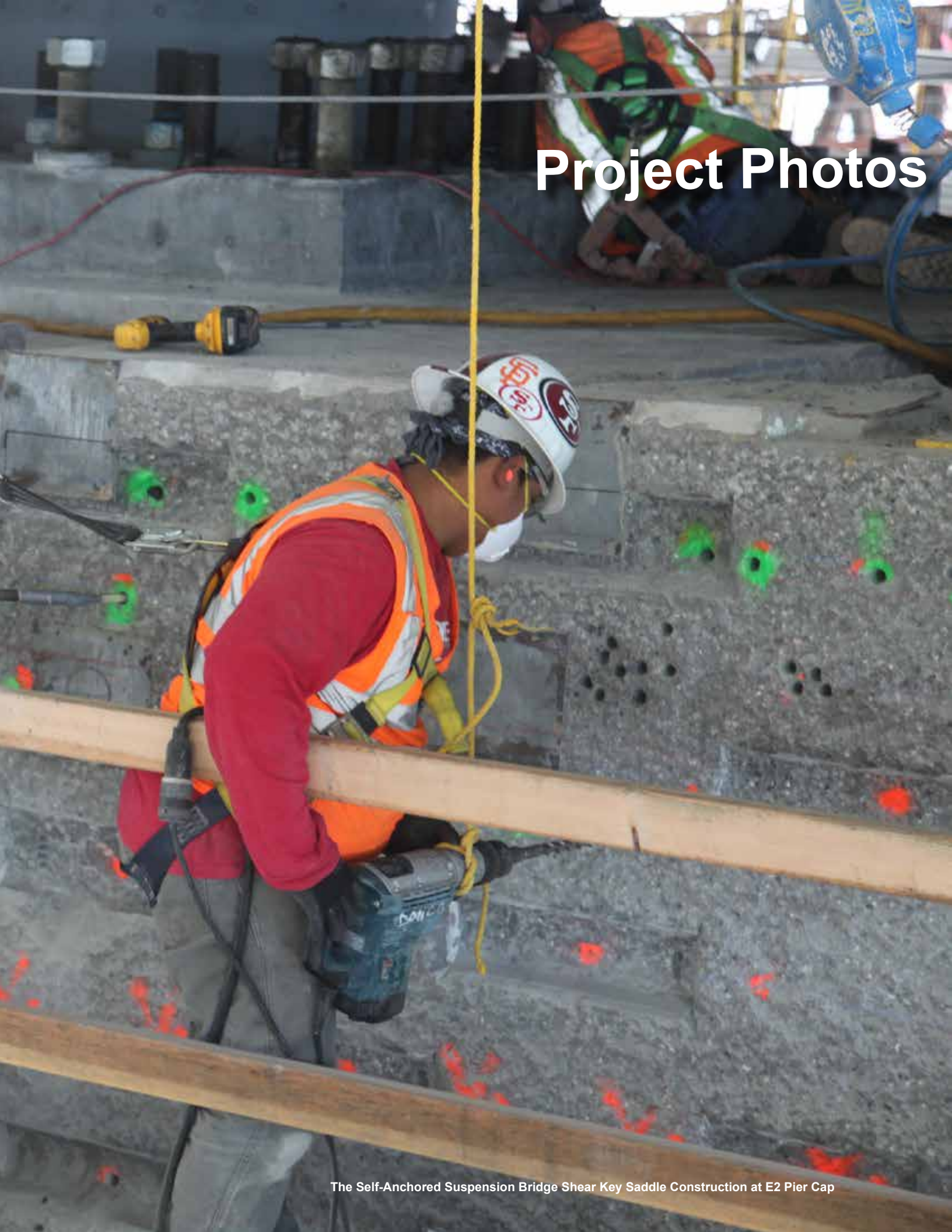
(Piers Not Shown To Scale)



Dumbarton Bridge Seismic Retrofit Completed



Project Photos



Appendix E: Project Progress Photographs

Self-Anchored Suspension Bridge Field Work



Pulling Seismic Cables at Tower Elevation 89m



Milling the east Face of Shearkey S1



Electrical Conduits and Cable Tray installation at Skyway Hinge AW



Polyester Concrete Overlay Trial Operation at Pier 7



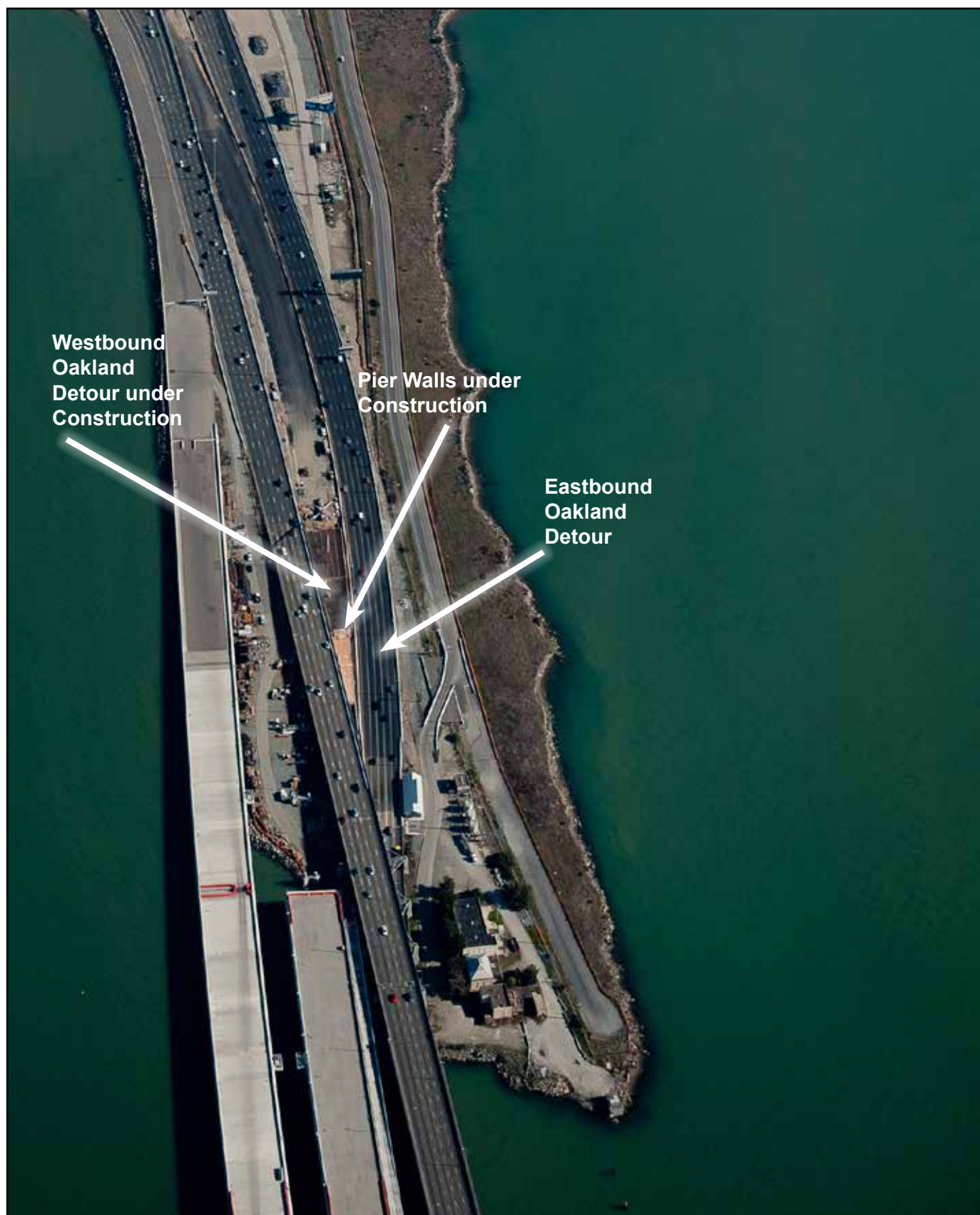
Self Anchored Suspension Bridge Looking West to San Francisco with the Yerba Buena Transition Structure on the right and the Existing Bay Bridge on the left



Appendix E: Project Progress Photographs

Westbound Oakland Detour

Before Opening to Traffic



After Opening to Traffic and Current Eastbound OTD Progress



Appendix E: Project Progress Photographs

Yerba Buena Island Transition Structure #1 Westbound



Eastbound Seismic Joint Installation between Frame 1 and 2



Sign Structures Installed on eastbound and westbound Roadways



Westbound Service Platform Being Installed



Slope Drainage Being Installed

Appendix E: Project Progress Photographs

Antioch Bridge



Antioch Bridge - Pier 41 Girders on Temporary Jacks prior to Installation of Isolation Bearings



Antioch Bridge - Welding of Jacking Stiffeners at Existing Girder Web

Appendix E: Project Progress Photographs

Dumbarton Bridge



Dumbarton Bridge - Ravenswood Pier Staging for Footing Overlay Work



Dumbarton Bridge - Pier 26 Footing Overlay - All Footing Overlay Completed Except Piers 23 & 24

Appendix F: Glossary of Terms

Glossary of Terms

AB 144/SB 66 BUDGET: The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005, and September 29, 2005, respectively.

AB 144/SB 66 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

APPROVED CHANGES: For cost, changes to the AB 144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

AT COMPLETION VARIANCE or VARIANCE (cost): The mathematical difference between the Cost Forecast and the Current Approved Budget.

BATA BUDGET: The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

BATA PROJECT COMPLETE BASELINE: The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

COST FORECAST: The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

COST TO DATE: The actual expenditures incurred by the program, project or contract as of the month and year shown.

CURRENT APPROVED BUDGET: The sum of the AB 144/SB 66 Budget or BATA Budget and Approved Changes.

HINGE PIPE BEAMS: Pipes between roadway sections designed to move within their sleeves during expansion or contraction of the decks during minor events, such as changes in temperature. The beams are designed to absorb the energy of an earthquake by deforming in their middle or “fuse” section. Hinge pipe beams are also found at the western piers where the SAS connects to the YBITS (Hinge “K” pipe beams).

PROJECT COMPLETE CURRENT APPROVED SCHEDULE: The sum of the AB 144/SB 66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

PROJECT COMPLETE SCHEDULE FORECAST: The current projected date for the completion of the program, project, or contract.

SCHEDULE VARIANCE or VARIANCE (schedule): The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

% COMPLETE: % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



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The information in this report is provided in accordance with California Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) on the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production is \$1,574,873.73.

THE BRIDGE BUILDERS

Constructing the new East Span of the San Francisco-Oakland Bay Bridge

A solo exhibition by Joseph A. Blum
June 24 - September 27, 2013

Artist's Reception, City Hall Ground Floor
Thursday, July 11, 5:30 - 7:30

San Francisco City Hall
Ground Floor and North Light Court
1 Dr. Carlton B. Goodlett Place
Monday- Friday 8 a.m. - 8 p.m.







Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** July 2, 2013

FR: Andrew Fremier, Deputy Executive Director, BATA

RE: Agenda No. - 4a
Program Issues
Item- Gateway Park Update

Recommendation:
APPROVAL

Cost:
N/A

Schedule:
N/A

Discussion:

As requested by the TBPOC, staff has reevaluated and phased the Gateway Park concept. The project has been split into Phase 1 and Phase 2 with options in each phase for further scope reductions. The estimated construction cost of Phase 1 ranges from \$105 to \$155 million and Phase 2 ranges from an additional \$35 to \$45 million.

Settling on the project scope is important, as the East Bay Regional Parks District has expressed concerns on the direction of the project and has requested an executive meeting between the lead parties (BATA and EBRPD) to discuss the planning, construction, and operations of the Gateway Park.

Staff requests approval to schedule this meeting in July or August, 2013.

Gateway Park Phase 1 Scope:

It is proposed that development of Gateway Park take place in two phases. Phase 1 which may be sub-divided into different contract packages, is the focus of the Project Approval/Environmental Document (PA/ED) currently underway, with final design and construction currently scheduled to be completed in 2018. Phase 1 provides a park at the foot of the new Bay Bridge East Span, satisfies mitigation commitment from various transportation projects, and allows for access to the new bridge for both

Memorandum

pedestrians and bicyclists, from Oakland and Emeryville and the broader East Bay. In addition to a new pedestrian/bicycle bridge along West Grand Avenue, the remainder of the proposed improvements will focus around the Park itself, west of IERBYS. The level of Park features and amenities will vary depending on the scale of the project which is discussed below and shown in Table 1.

Phase 1 Construction Cost Estimate:

The order-of-magnitude construction cost estimate for Phase 1 totals range from \$104.7M (minimum scope) to \$154.8M (full scope). This includes a 30% contingency at this point of the PA/ED process. A breakdown of cost estimates is located in the chart below.

For the Phase 1 Full Scope construction cost estimate of \$154.8M, there will be full landscaping underneath West Grand Avenue at Frontage Road; decorative and integrated lighting, concrete finishes and decorative railings along the elevated pedestrian/bicyclist bridge; the full passive and active playgrounds; IERBYS architectural and structural improvements for a “move-in” ready use; full reuse of existing East Span elements integrated into the Park; coastline protection along the eastern edge of the Park’s shoreline; and full public art display locations.

A Reduced Scope version of the Phase 1 Full Scope is estimated at \$127.1M. At this cost, landscaping underneath West Grand Avenue at Frontage Road would be eliminated; decorative or enhanced elements for the elevated pedestrian/bicyclist bridge would be reduced from 30% to 20% enhancements; one of the playgrounds would be removed; the architectural and structural improvements would not take place in IERBYS; some of the pieces of the existing East Span would not be reused; and there would not be full seawalls along the eastern edge of the Park’s shoreline.

For the Minimum Scope estimated construction cost of \$104.7M, all the elements in the Reduced Scope version would be removed including lowering the proposed site by 2-ft (from Elev 14 to Elev 12); eliminating any decorative or enhanced elements for the elevated pedestrian/bicyclist bridge and half the ramp connection at Mandela Parkway; removing an additional playground element; eliminating all existing East Span elements planned for reuse; and reducing a location for public art display.

Table 1: Phase 1 Construction Cost Estimate

COST CATEGORY	Amount in Millions PHASE 1 Full Scope	Phase 1 – REDUCED SCOPE		Phase 1 – MINIMUM SCOPE	
		Amount in Millions	Elements Deducted from PHASE 1 Full Scope	Amount in Millions	Elements Deducted from PHASE 1 Full Scope
Site Preparation	\$0.4	\$0.4		\$0.4	
Landscape Planting & Irrigation	\$6.6	\$3.3	Eliminate landscaping underneath West Grand Avenue at Frontage Road	\$3.3	Eliminate landscaping underneath West Grand Avenue at Frontage Road
Earthwork	\$11.4	\$11.4		\$8.9	Lower proposed site elevations by 2-ft (from Elev 14 to Elev 12)
Drainage	\$3.8	\$3.8		\$3.8	
Elevated Path (structure)	\$45.8	\$42.8	Reduce decorative/enhanced elements for the elevated pedestrian/bicyclist bridge from 30% to 20%	\$35.7	Remove decorative/enhanced elements for the elevated pedestrian/bicyclist bridge and half the ramp connection at Mandela Parkway
Trails, Sidewalks	\$3.4	\$3.4		\$3.4	
Intersections, Parking Lots	\$4.7	\$4.7		\$4.7	
Playground	\$8.5	\$4.8	Remove one playground	\$1.0	Remove two playgrounds
Buildings	\$10.9	\$2.4	Eliminate architectural and structural improvements in IERBYS	\$2.4	Eliminate architectural and structural improvements in IERBYS
Structures (Walls, Pier, Reuse)	\$7.9	\$5.7	Reduce reuse/repurpose elements from the existing East Span	\$2.7	Eliminate all reuse/repurpose elements from the existing East Span
Shoreline Protection	\$6.1	\$6.1		\$6.1	
Public Art	\$0.9	\$0.9		\$0.6	Reduce locations for public art display
Utilities	\$4.3	\$4.3		\$4.3	
Mitigation & Haz Mat	\$0.2	\$0.2		\$0.2	
Miscellaneous (Lights, Signs, Furnishings)	\$0.7	\$0.7		\$0.7	
Mobilization (3%)	\$3.5	\$2.9		\$2.3	
CON Total Cost	\$119.1	\$97.8		\$80.5	
Add 30% Contingency	\$35.7	\$29.3		\$24.2	
CON Total w/Contingency	\$154.8	\$127.1		\$104.7	

Notes:

1. Project costs are in 2013 dollars and are not escalated.
2. It is assumed that the site would be provided after the cleanup of hazardous materials.

Phase 2 Cost Estimate:

The Phase 2 improvements have been broken down by cost according to “stand-alone” features that could be added to Phase 1. These include areas for additional enhancements or areas previously not identified in Phase 1 such as Radio Beach and the rest of the landscaping underneath and around the Maze. These are shown in Table 2 on the following page.

Table 2: Phase 2 Elements and Cost Estimate

Phase 2 Optional Items (Stand Alone)	Amount in Millions Phase 2 FULL	Amount in Millions Phase 2 Reduced	Elements Deducted from Phase 2 FULL
Radio Beach	\$10.3	\$10.3	
Landscaping & Irrigation (under Maze)	\$2.0	\$2.0	
New Building @ the Point	\$0.5	\$0.5	
Retrofit Buildings @ the Point	\$2.6	\$2.6	
New Auditorium	\$3.5	\$3.5	
Bridgelyard Artwork	\$0.6	\$0.6	
288 Completion	\$6.0	\$2.0	Reduce 288 buildout
Pedestals, Trains, Site Furnishings	\$1.4	\$1.4	
Infrastructure Trellis	\$7.0	\$2.0	Reduce complexity in trellis structure
Specialty Paving @ IERBYS	\$1.5	\$1.5	
CON Total Cost	\$35.4	\$26.4	
Add 30% Contingency	\$10.6	\$7.9	
CON Total w/Contingency	\$46.0	\$34.3	

Note: Project costs are in 2013 dollars and are not escalated.

Future Phases with Funding TBD:

Future phases of the project will depend on the scope of the three Phase 1 options shown previously in Table 1 (see page 2). If the Reduced Scope or Minimum Scope options for Phase 1 are selected, it is suggested the future funding go towards completing the Phase 1 Full scope first, then completing the Phase 2 elements.

Funding:

The proposed Gateway Park Funding Plan (Table 3a and 3b below) is an attempt to examine realistic fund sources that could be used for the design and development of the park. The proposed funding totals \$158M.

Table 3a: Potential Funding

FUNDING SOURCE	Amount in Millions
Seismic Funds	\$62
Bridge Tolls	\$60
State TE Funds	\$15
Local TE Funds	\$15
EBRPD Measure	\$5
BCDC	\$1
City of Oakland	TBD
Private	TBD
Other	TBD
TOTAL Potential Funding	\$158+TBD

Table 3b: Funding and Project Costs Comparison

PROJECT COSTS AND FUNDING	Amount in Millions PHASE 1 Full Scope	Amount in Millions PHASE 1 Reduced Scope	Amount in Millions PHASE 1 Minimum Scope
TOTAL CON Cost	\$154.8	\$127.1	\$104.7
Capital Outlay Support (COS @15%)	\$23.2	\$19.0	\$15.7
Funding Gap	(\$20.0)	None (+\$11.9)	None (+\$37.6)

Operation and Maintenance (O&M):

The estimated O&M and earned income values were taken from the “Gateway Park Programming & Governance Considerations Report” dated May 22, 2013 prepared by HR&A and used to prepare Table 4 below.

Table 4: Estimated Operation & Maintenance and Revenue

ANNUAL O&M and REVENUE	Amount in Millions PHASE 1 Full Scope	Amount in Millions PHASE 1 Reduced Scope	Amount in Millions PHASE 1 Minimum Scope
O&M Costs	(\$1.60-\$2.50)	(\$0.95-\$1.60)	(\$0.30-\$0.75)
Earned Income	\$1.50-\$3.00	\$0.80-\$1.50	\$0.05-\$0.10
Base Public Funding	\$0.25-\$0.65	\$0.25-\$0.65	\$0.25-\$0.65
Potential Surplus	\$0.15-\$1.15	\$0.10-\$0.55	None

An active park is assumed for O&M costs of the Phase 1 Full Scope project. A passive park is assumed for O&M of the Phase 1 Minimum Scope project. O&M costs for the Phase 1 Reduced Scope project are an average of the active and passive parks.

For the active park, Phase 1 Full Scope project, income generating sources include cafes, small and large events, an attraction ride, IERBYS reuse, sponsorship/signage, and philanthropy. For a passive park, Phase 1 Minimum Scope project, income generating sources include food stands and small events. Earned income for the Phase 1 Reduced Scope project is an average of the active (Full Scope) park and passive (Minimum Scope) park.

Recent Activities:

- Gateway Park Working Group monthly meetings
- Gateway Park TAC/ PDT meetings
- Presentation to EBPRD Board
- Risk Management Framework Meeting

Upcoming Activities:

- Public Scoping Meeting (early September)
- Risk Management Workshops
- BATA/EBPRD Meeting

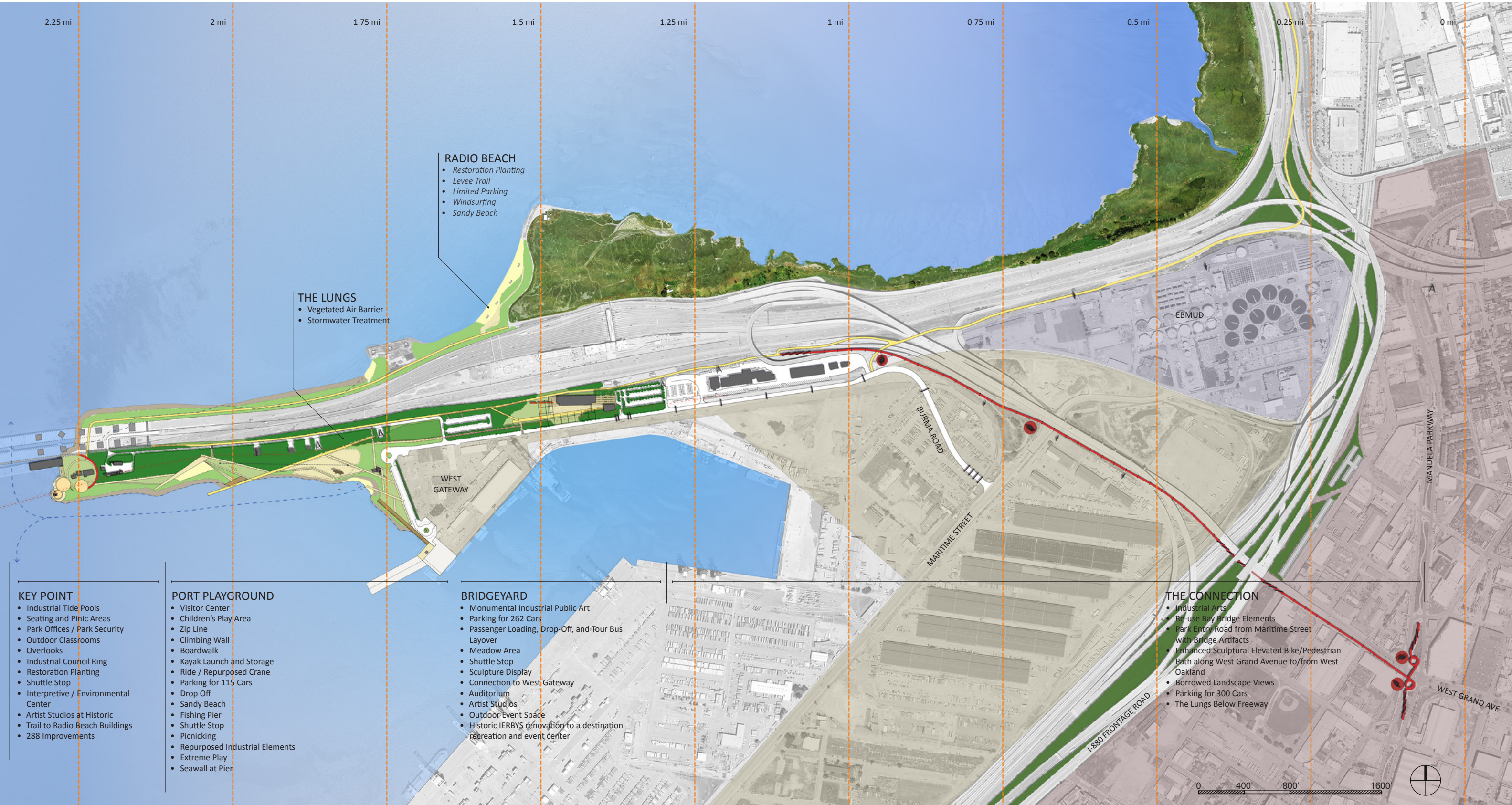
Attachment(s):

Gateway Park Vision Plan

Gateway Park Full Scope Phase 1

Gateway Park Reduced Scope Phase 1

Gateway Park Minimum Scope Phase 1









Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** July 2, 2013

FR: Program Management Team (PMT)

RE: Agenda No. - 5a
San Francisco-Oakland Bay Bridge Updates
Item- E2 Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Memos covering Items 5a1- E2 Budget, 5a2 - E2 CCOs, and 5a3 - Testing Budget, will be sent under separate cover.

Attachment(s):

N/A

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** July 2, 2013

FR: Tony Anziano – Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 5b
San Francisco-Oakland Bay Bridge Updates
Item- Corridor Update / Schedule

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

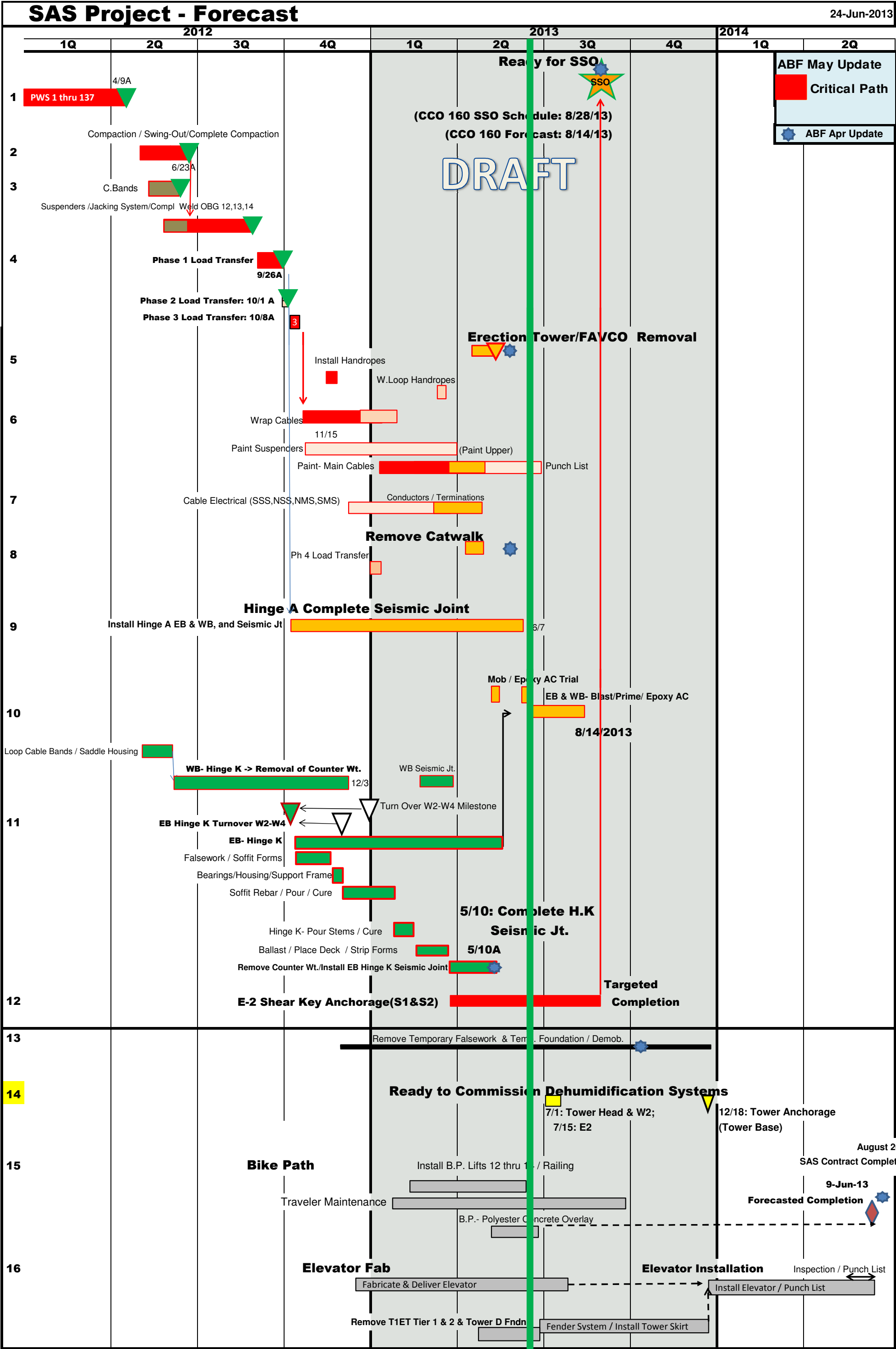
Discussion:

A verbal corridor update will be provided at the TBPOC meeting on July 10, 2013.

Attached are summary schedules for reference and further discussion at the meeting.

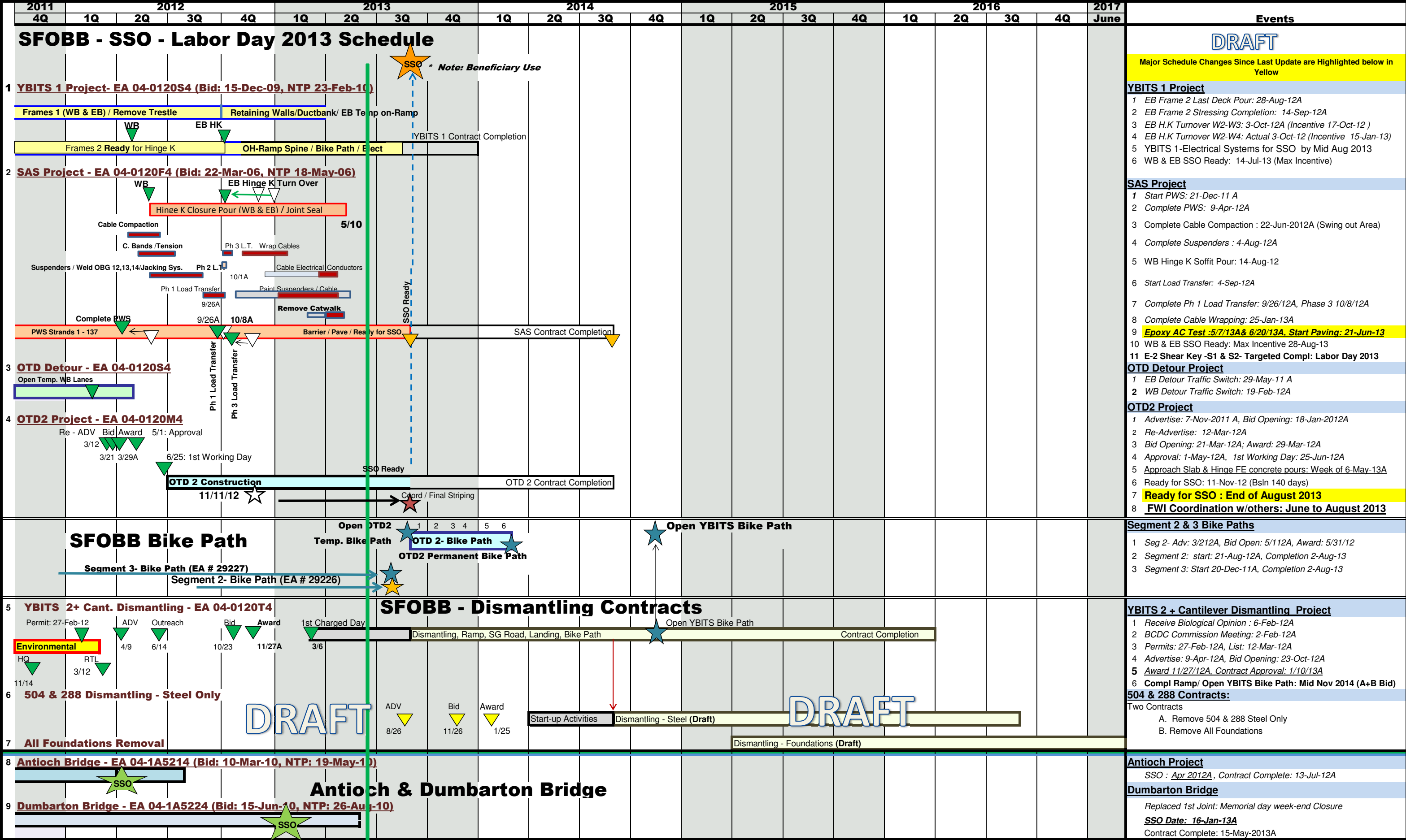
Attachment(s):

1. SAS Project – Forecast
2. Toll Bridge Seismic Retrofit Program – Summary Schedule (SSO)



Toll Bridge Seismic Retrofit Program - Summary Schedule (SSO)

6/24/2013



Memorandum

TO: Toll Bridge Oversight Committee (TBPOC) **DATE:** July 2, 2013

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 5c
Item - San Francisco-Oakland Bay Bridge Updates
Bridge Safety and Security

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

None

Discussion:

The following is an update on the status of security items on the bridge.

The California Bridge Assault Advisory Panel report dated June 10, 2002 recommended that steps be taken to secure the East Span SFOBB. Among the recommendations, it states "Evaluate possible deterrents, hardening and surveillance measures to increase safety and security of bridges."

The CHP prepared a confidential Security Vulnerability Assessment (SVA) which addresses multiple aspects of this recommendation. A walk through to update the SVA is scheduled for July 16-18. The Department is continuing to implement the identified responses to the recommendations, specifically:

- The BASE system cameras and underlying software are currently being installed. While not all cameras will be installed by the time of bridge opening (SSO), a significant majority of the cameras will be installed and functioning. The software system will be running at SSO and the remaining cameras will be installed as the bridge construction is completed.
- All access openings to the interior of the structure will be locked for SSO.
- The revised suspension cable gate will be fabricated. Installation timing is still to be determined; however it may occur after SSO.

Memorandum

- Service platform access restrictions and signage are complete on the Skyway and portions of the OTD. Access restrictions and signage will be complete for the SAS service platforms by SSO.
- Right of way and bridge protection fencing on the island will be installed as part of the YBITS 2 construction contract after SSO. In the interim, security guards and active construction activity will provide security for both the affected areas of the bridge.
- A portion of the bridge bike path will be open immediately following SSO, and will be patrolled by the CHP.
- Suicide prevention: A suicide response plan is under development. Portions of the plan are modeled after the Golden Gate Bridge plan. Emergency call boxes on the bridge and the bike path will be installed by SSO.
- An expressive activity plan is under development.

Opening day security plans are under development as part of the opening weekend activity planning.

Attachment(s):

N/A

TO: Toll Bridge Program Oversight Committee **DATE:** July 2, 2013
(TBPOC)

FR: Saeed Shahmirzai, Bay Bridge MEP Integrator, BATA

RE: Agenda No. - 5d
San Francisco-Oakland Bay Bridge Updates
Item- Mechanical, Electrical and Piping (MEP) System Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

The Bay Bridge MEP Integrator will present on the “SFOBB Mechanical, Electrical and Piping (MEP) System” at the TBPOC July 10 meeting. Attached is a copy of his presentation.

Attachment(s):

SFOBB Mechanical, Electrical and Piping (MEP) System

July 10, 2013

SFOBB

MECHANICAL, ELECTRICAL AND PIPING (MEP) SYSTEM

Presentation Outline

● Electrical Systems

- Power
- TOS (Traffic Operation System)
- SCADA (Supervisory Control and Data Acquisition)
- BASE (Bay Area Security Enhancement)
- CDMG (California Division of Mines & Geology) Monitoring Equipment
- Non-Caltrans Systems

● Mechanical Systems

- Tower Elevator
- Dehumidifiers
- Travelers

● Piping Systems

- Compressed Airlines
- Maintenance Water Lines
- CCSF and Reclaimed Water Lines
- CCSF Sewer Line

● MEP Integration Cost Update

Electrical Systems: Power

- ◉ Integrated System
 - 5 new substations
 - 3 existing substations

Providing Power for :

- ◉ Lighting: Poles, cables, bike path & interior
- ◉ Aviation & Navigation lights
- ◉ Signs and Call Boxes
- ◉ Mechanical Systems' Needs:
 - Tower Elevator
 - Dehumidifiers
 - Travelers

Status: 75% complete



Electrical Systems:

Traffic Operations System (TOS)

- 6 CMS (Changeable Message Signs)
- TOS Cameras
- Traffic Loop Detectors
- MVDS (Microwave Vehicle Detection System)
- Call Boxes

Status: 70% complete



Electrical Systems:

SCADA (Supervisory Control and Data Acquisition)

Controls and monitors:

- Lighting
- Aviation/Navigation
- Power lines
- Substations
- Dehumidifiers
- Call Boxes

Status: 75% complete

Electrical Systems: BASE

- Fiber backbone
- Cameras / Motion Sensors
- Monitoring / Server Rooms

Status: 60% complete

(For items needed before SSO)



Electrical Systems:

California Division of Mine & Geology (CDMG)

State Mining & Geology Board (SMGB)

- ⦿ **Sensors**
- ⦿ **Hardwire**
- ⦿ **Testing to be done in August**

Status: 75% complete

Electrical Systems: NON_Caltrans Systems

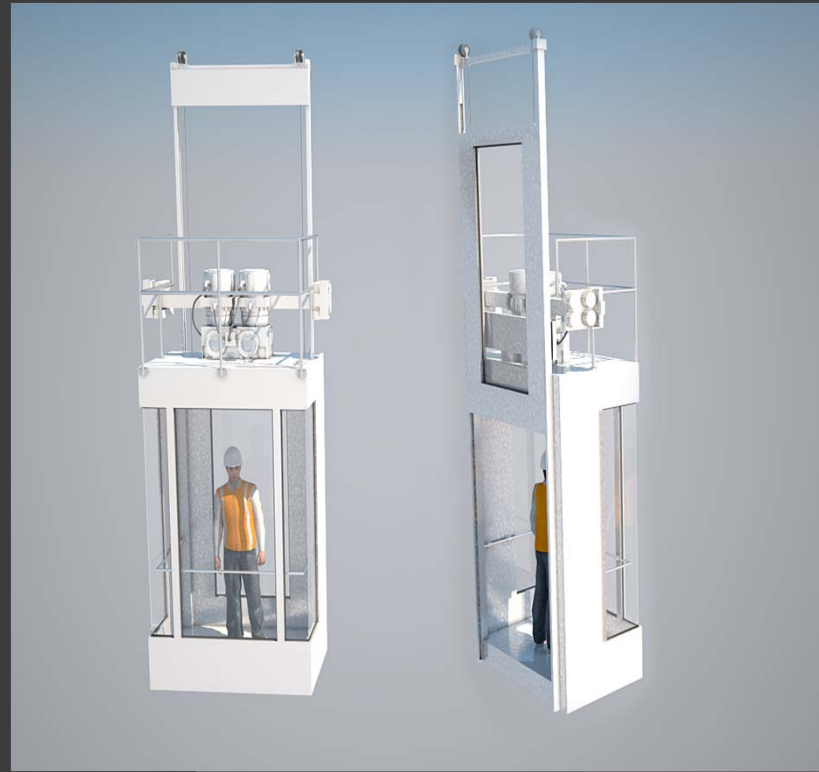
- **AT&T Fiber Relocation**
- **AT&T Antenna**
 - Backbone work in progress
 - Actual Antennas under review
- **Bay Bridge Consortium (BBC)**
 - working along with AT&T relocation

Mechanical Systems:

- Tower Elevator
- Dehumidifiers
- Travelers

Mechanical Systems: Tower Elevator

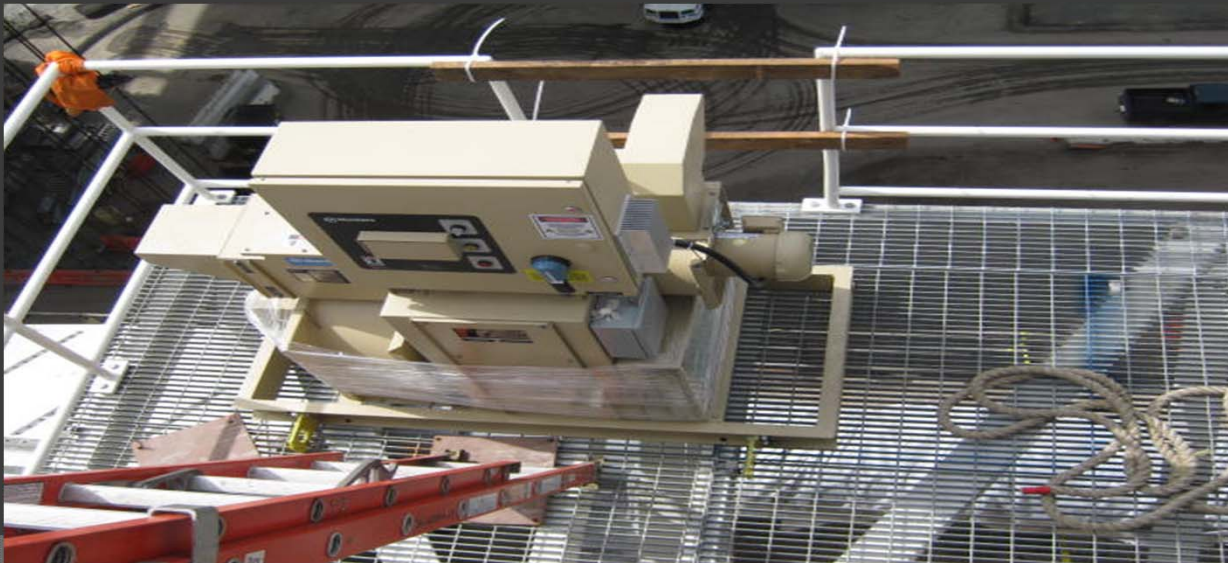
- Fabrication in Progress



Mechanical Systems: Dehumidifiers (Total of 5)

- Two at Tower (one at Top & one at the base)
- Two at E2
- One at W2

Status: 4 installed, (One at tower base not installed yet)



Mechanical Systems: Travelers (Total of 7)

- 2 on WB SAS
- 2 on EB SAS
- 3 ON Bikepath (One on SAS / 2 on Skyway)

Status: All Installed (testing in progress)



Piping System: Compressed Airlines

- 4" line for Maintenance
- Eastbound
- Westbound

Status: 85% Installed



Piping System: Water

- 2.5" for Maintenance
- Eastbound
- Westbound

Status: 85% Installed



Piping System: City & County of San Francisco Facilities

- ① 12" Water line
- ① 6" reclaimed water (Westbound Structure)
- ① 10" sewer line (Eastbound structure)

Status: 75% Installed



SFOBB MEP Integration Strategy (CONFIDENTIAL)

7-10-2013

	Segregation of Work	Approved Budget Nov 2008	Revised Approved Budget Sep 2012	Estimated Cost Projections to complete	Comments
A	Furnish Light Poles (BATA Contract)				
Item A-1	Furnish Light Poles	\$15,300,000.00	\$5,888,909.00	\$2,888,909.00	This is the Original Contract Amount for poles
Item A-2	Storage Cost	\$1,500,000.00	\$0.00	\$0.00	Storage
	Change Order			\$3,000,000.00	Change Orders
	Total Estimated Cost To Furnish Light Poles (BATA Contract)	\$16,800,000.00	\$5,888,909.00	\$5,888,909.00	The fixtures were eliminated from this contract and added to Item 1B below.
B	MEP Integration Work Installation				
Item B-1	Install Light Poles (Skyway and OTD1), F&I LED fixture for corridor poles	\$2,000,000.00	\$13,500,000.00	\$13,466,929.00	Fixtures were eliminated from pole contract and added to this item (CCO 902).
Item B-2	Installation of MEP items eliminated from Skyway & OTD1	\$8,000,000.00	\$8,000,000.00	\$9,000,000.00	CCO 110, 903, 907, 908, 912, 913, 914, 915, 916, 801,
Item B-3	Upgrades & Revisions of the already installed components (Skyway & OTD1)	\$2,500,000.00	\$2,500,000.00	\$1,600,000.00	CCO 163
Item B-4	Installation of BASE System (conduits & Cabinets within Skyway & OTD1)	\$2,000,000.00	\$0.00		This work is included in Item D below
Item B-5	Contingency (20%), changed to 15% in January 2012, changed to 10% July 2013	\$2,900,000.00	\$3,600,000.00	\$2,406,692.90	Contingency is reduced to 10% (July 2013)
	Total Estimated Cost For Installation	\$17,400,000.00	\$27,600,000.00	\$26,473,621.90	Projection is below approved budget
	Total for all Light Poles & MEP Integration Work (within Skyway & OTD1)	\$34,200,000.00	\$33,488,909.00	\$32,362,530.90	Total of \$34.2M for Items A & B was approved by TBPOC 11-6-2008
C	System Wide Testing (Entire Corridor)				
Item C-1	System wide (Entire Corridor) testing, Relay Setting, SCADA development &	\$3,000,000.00	\$3,000,000.00	\$2,800,000.00	CCO 905, CCO 906 & CCO 918
Item C-2	Resolution of system wide testing issues (for entire corridor)	\$1,500,000.00	\$1,500,000.00	\$1,000,000.00	
Item C-3	Contingency (20%)	\$900,000.00	\$900,000.00	\$760,000.00	
	Total Estimated Cost Of System wide Testing	\$5,400,000.00	\$5,400,000.00	\$4,560,000.00	\$5.4M was approved by TBPOC on May 6, 2010
D	Complete BASE System (Entire Corridor)	March 2010	Sep 2012		
Item D-1	Hardware (Cameras, interface box and decoder for each camera / wiring)	\$3,000,000.00	\$3,000,000.00		CCOs 901-S2, 150-S1
Item D-2	Installation cost (Camera & Hardware)	\$1,500,000.00	\$3,500,000.00	\$7,000,000.00	
Item D-3	New dedicated fiber line in both structures with 2 loops	\$2,000,000.00	\$2,000,000.00	\$1,200,000.00	CCOs 901 & 901S1 on YBI and CCO 150 on SAS
Item D-4	Added wireless dish & supporting Equipment @ YBI-1, Licensed Frequency	N/A	\$1,200,000.00	\$1,200,000.00	CCO 904 (YBI-1 Project)
Item D-5	Network, Video Management & Monitoring (Hardware, Software, Server & Monitoring Room)	N/A	\$3,000,000.00	\$2,500,000.00	CCOs 803, 911
Item D-6	Furnish & Install BASE cameras at YBI	N/A	\$1,000,000.00	\$1,500,000.00	Work to be done after SSO
Item D-7	Pier Top Cameras, Motion Sensors & Camera wash units (F&I 48 of each)	N/A	\$8,167,000.00	\$7,000,000.00	Work to be done after SSO
Item D-8	Contingency (20%)	\$1,300,000.00	\$4,373,400.00	\$4,080,000.00	
	Total Estimated Cost for BASE System	\$7,800,000.00	\$26,240,400.00	\$24,480,000.00	
	Total for all items Above (Items A, B, C & D)	\$47,400,000.00	\$65,129,309.00	\$61,402,530.90	
	MEP Rehab Projects			Cost	
	Tunnel Lighting & Portal Lighting			\$6,200,000.00	CCOs 159, 159-S1 & 910
	W4 substation transformer & W4 rehab			\$1,900,000.00	CCOs 909 & 601
	Total MEP Rehab Projects			\$8,100,000.00	

MEP Integration Goals (set in 2008)

⦿ Consistency

- Light Poles (Done under one Contract)
- Light Fixtures (Done by CCOs)

⦿ Incorporate Necessary Upgrades / Changes

- Changed HID lights to LED Fixtures
- SCADA , Changing from Copper to Fiber (work in progress)
- BASE (consistent system incorporated into all contracts)
- Tunnel LED (work in progress)

⦿ Schedule / Sequence of Work / Coordination

- Installation of MEP Items in Skyway (deleted from original contract)
- Coordination on 10 different Contracts for Electrical work

⦿ Comprehensive Testing & Commissioning

- End to End Testing & Commissioning to start in August
- Arc Flash Labeling Study (New 2011NEC Code)

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** July 2, 2013

FR: Program Management Team (PMT)

RE: Agenda No. - 6a
Other Business
Item- TBPOC August 1, 2013 Meeting Reschedule

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Not all members of the TBPOC will be available for an August 1 meeting. A new meeting date may be decided at the July 10 meeting, or a conference call in lieu of such a meeting may be scheduled. There is currently a placeholder for a TBPOC conference call on August 22, 2013, 10:00am – 11:00am.

Attachment(s):

N/A